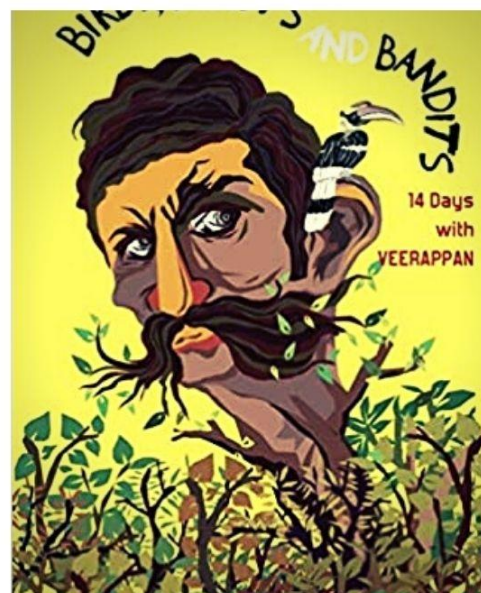
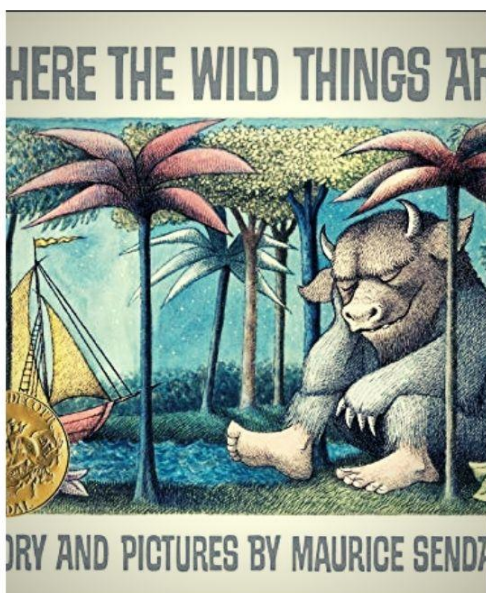
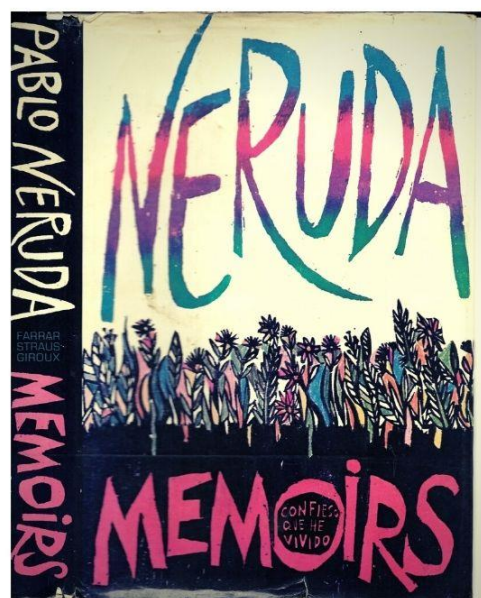
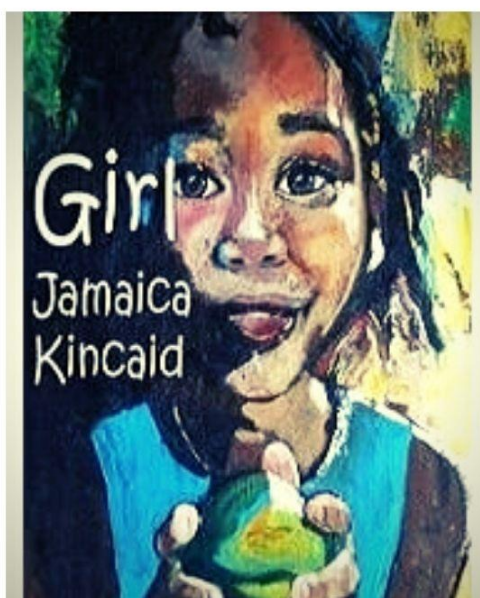




FIRST SEMESTER  
GENERIC ENGLISH COURSE

# WORD WONDERS

TUMKUR UNIVERSITY : NEP TEXT BOOK



COMPILED BY

DR UDAYA RAVI SHASTRY

**E-text book**  
**For private circulation only**

For the Students  
Of

Pallagatti Adavappa  
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## 1. SHYNESS

**Pablo Neruda**

I really lived many of the first years of my life, and perhaps many of the next ones and the ones after that, as a kind of deaf-mute. Dressed in ritual black since I had been a young boy, like the true poets of the last century, I had the vague impression that I didn't look bad at all. But, instead of going after girls, since I knew I would stutter or turn red in front of them, I preferred to pass them up and go on my way, showing a total lack of interest I was very far from feeling. They were all a deep mystery to me. I would have liked to burn at the stake in that secret fire, to drown in the inscrutable depth of that well, but I lacked the courage to throw myself into the fire or the water. And since I could find no one to give me a push, I walked along the fascinating edge, without even a side glance, much less a smile.

The same thing happened to me in front of grownups, insignificant persons, railroad or post-office employees with their "senoras esposas," their lady wives, so referred to because the petite bourgeoisie is shocked, intimidated, by the word "mujer," woman or wife. I listened to the conversations at my father's table. But the next day, if I ran into those who had dined at my home the evening before, I didn't dare greet them, I even crossed over to the other side of the street to avoid embarrassment.

Shyness is a kink in the soul, a special category, a dimension that opens out into solitude. Moreover, it is an inherent suffering, as if we had two epidermises and the one underneath rebelled and shrank back from life. Of the things that make up a man, this quality, this damaging thing, is a part of the alloy that lays the foundation, in the long run, for the perpetuity of the self.

My rain-haunted backwardness, my long-drawn-out retreat into myself, lasted longer than it should have. When I came to the capital, I slowly acquired new friends of both sexes. The less attention people paid to me, the easier it was for me to make friends. I was not particularly curious about mankind then. I can't get to know all the people in this world, I said to myself. Still and all, a faint curiosity was stirred up in certain circles by this new poet, just over sixteen, a reticent boy, a loner, whom they saw come and go without so much as a good morning or goodbye. Aside from the fact that I'd be wearing a long Spanish cape that made me look like a scarecrow. No one suspected that my striking attire was made-to-order for my poverty.

Among the people who sought my company were two big snobs of the day: Pilo Y afiez and his wife, Mina. They were the perfect embodiment of the beautiful idle life I would have loved to live, more remote than a dream. It was my first time in a house with heat, soft lighting, pleasant furniture, walls covered with books whose multicolored spines were like a springtime that was inaccessible to me. Kindly and discreet, overlooking my various layers of silence and withdrawal, the y anezes often invited me to their home. I used to leave their house in a happy mood, and they noticed and invited me again.

I saw cubist paintings for the first time in that house, a Juan Gris among them. They told me that Juan Gris had been a friend of the family in Paris. But what intrigued me most was my friend's pajamas. Whenever I could, I examined them out of the corner of my eye with intense admiration. It was winter, and the pajamas were made of a heavy material, like the baize on billiard tables, but a deep-sea blue. In those days I couldn't imagine any kind of pajamas except striped ones, yke prison uniforms. Pilo Yanez's were like nothing I had ever seen. Their heavy fabric, their resplendent blue, aroused the envy of the poor poet who lived in the Santiago suburbs. And in fifty years I have not come across any pajamas quite like those.

I lost sight of the Y afiezes for many years. She gave up her husband, and she also gave up the soft lighting and excellent armchairs, for an acrobat in a Russian circus that passed through Santiago. Later on, she sold tickets, all the way from Australia to the British Isles, to help out the acrobat who had swept her off her feet. She ended up as a Rosicrucian or something like that, with a group of mystics in the South of France.

As for Pilo Y afiez, the husband, he changed his name to Juan Emar and in time became a powerful, though still undiscovered writer. We were lifelong friends. Silent and kindly but poor, that's how he died. His many books have yet to be published, but they are sure to take root and blossom someday.

I'll leave Pilo Yanez, or Juan Emar, and take up my shyness again, recalling that during my student days my friend Pilo was set on introducing me to his father. "I'm sure he'll get you a trip to Europe," he told me. At that moment, all Latin American poets and painters had their eyes riveted on Paris. Pilo's father was a very important man, a senator. He lived in one of those enormous ugly houses on a street near the Plaza de Annas and the presidential palace-where no doubt he would have preferred to live.

My friends stayed in the anteroom, after stripping off my cape to make me look more normal. They opened the door to the senator's study for me and shut it behind me. It was an immense room, and may have been a great reception hall at one time, but it was just about empty now, except deep inside, at the far end, where I could make out an armchair, with the senator in it under a floor lamp. The pages of the newspaper he was reading hid him completely, like a screen.

Taking my first step on the murderously waxed and buffed parquet, I slid like a skier. I picked up speed dizzily. I tried to brake myself, only to lose my footing and fall several times. My last spill was right at the feet of the senator, who was observing me now with cold eyes, without letting go of his paper.

I managed to sit down in a small chair next to him. The great man inspected me with the eye of a bored entomologist to whom someone brings a specimen that he already knows inside out, a harmless spider. He questioned me vaguely about my projects. After my spill, I was even more timid and less eloquent than ever.

I don't know what I told him. At the end of twenty minutes he put out a tiny hand toward me, as a sign of dismissal. I thought I heard him promise in a very soft voice that I would hear from him. Then he picked up his newspaper again and I started back across the dangerous parquet, taking all the precautions I should have taken when first stepping onto it. Of course the senator, my friend's father, never let me hear from him. On the other hand, sometime later a military revolt, which was actually stupid and reactionary, got him to jump out of his chair with his everlasting paper. I confess that this made me happy.

## 2. VEERAPPAN CONDUCTS JUNGLE INTERVIEWS

Krupakar & Senani

Krupakar

The downpour had stopped, but the drizzle and the slush were making our trek miserable. We made slow progress in the dark, stumbling, slipping and recovering. Their torches were just about reaching the forest path—and nothing more. The gang was ready with loaded guns, just in case.

Within 200 metres of our house, we heard something moving in the bushes. All but one of the torches went out. Everyone stood still. The man in front pointed his beam in the direction of the sound. We caught a glimpse of a pair of shining eyes. He held up a stick, and slid towards the grass. As he was about to strike, a blacknaped hare sprang out, and vanished.

We progressed on a stone-strewn, thorny path. As we stood on a hill, freeing ourselves from the thorny shrubs, Veerappan pushed Senani aside and swung his rifle southwards. All of us stood still, ears pricked. ‘It might

be an elephant,' Veerappan whispered. Senani murmured that it might be a gaur. I couldn't make out a thing in the dark. Confirming where the sound was coming from, Veerappan placed the barrel on his left forearm—he already held a torch in his left hand—and took four steps forward, silently, like a leopard. I was anxious he would kill the elephant, if it were one, if it came charging. The animal turned in a flash, and it was immediately clear that it was a huge gaur bull. In a moment it had crashed through the bushes and vanished.

The journey continued and we walked three to four kilometres. I had deliberately slowed down my pace. I was worried they would take us farther away if I walked fast. But Senani was striding ahead as though he had some urgent work of his own. We stopped to rest after some time. The two men who held our chains sat down beside us. They started discussing something in a whisper. The man holding me told the other, pointing to me, 'He isn't as strong as the other one.' The other said, 'Yes, yes, this one seems better.' They were talking like peasants debating the merits of their cattle purchases on the way back from a fair.

Veerappan then came back to Senani's side, and started questioning him again like an inquiry officer. He must have decided he would find out everything about us. Senani was giving him the same old answers. The journey resumed after ten minutes. After we had walked about 4 km, Sethukuli Govindan pointed to a place and said, 'Let's sleep here.'

Senani suggested we go elsewhere, as the grass here would be full of ticks. Veerappan said that was no problem, and cleared the water with a branch he had broken off.

He told us to sleep by his side. He opened a bag, handed out bananas, and started asking the same questions yet again. The packed bananas had changed their shape from exclamation marks to question marks. Some had turned into horse shoes. We had no idea about the gang's meal timings, or the menu. We decided it was wise to eat whatever they gave us, and store it in our stomachs.

It was 4 a.m. when we went to sleep. Sethukuli woke us all up an hour later and said, 'It's dawn. Let's go.' The journey without a destination continued. Veerappan began discussing his plan of action with Senani.

## Senani

Before we came to Bandipur, we had spent some years in Mudumalai in Tamil Nadu. Krupakar had taught Kannada to everyone there, but hadn't picked up any Tamil. He could understand Tamil, but couldn't speak it well. That was the reason Veerappan spoke to me most of the time. My knowledge of the language was just about enough to communicate a little with Veerappan. He began his interrogation yet another time. 'Do big officials come to see animals? Do whites come in big numbers?'

'Can't say for sure. Tourists come here. They may be officials, or not.'

'Do people from England and America come here?'

'They may.'

'If we catch them, you have to ask them questions I tell you, and get their answers for me, okay?'

'Yes.'

'Oh, Sheni ... Do people who come in vans carry guns?'

‘If they are dignitaries, they have armed guards to protect them.’

When we reached a pond called Hulikatte, talking along the way, it was half past six. Veerappan made us sit by a stream near a rock. A man stood guard, holding a gun. Veerappan walked across the road towards a small bridge, and chose a spot for his road blockade. His men started bringing huge stones and blocking the road.

Sethukuli asked the time. Every now and then, Veerappan supervised the building of the blockade. It was so big it could stop a train. He instructed his gang to fetch more stones. I said that wasn’t necessary. ‘You don’t know. What if a big van breaks through these stones and escapes?’ he said, ordering his men to look for bigger stones.

For some reason, the mini-bus carrying tourists didn’t arrive till half past eight. We were anxious about the kidnapping that would soon be pulled off. Every few minutes, Veerappan came to us and asked if the vehicle would come at all. He seemed a little confused. Sethukuli had disappeared somewhere.

It was a cloudy morning, and the forest, with its fallen leaves, was invigorating. We heard a vehicle approaching. It was 8.30 a.m. Veerappan’s men, who had been chatting and going about their work casually as if in their own garden, suddenly disappeared behind the shrubs and boulders.

The van rumbled along, filled with tourists eager to see wild animals, totally oblivious to the danger awaiting them. As it was about to cross the bridge, the driver saw the stone blockade, and braked. The tourists looked about, expecting to see wild animals. Veerappan’s men sprang out of their hiding places and surrounded the van like guerillas

taking their positions. Veerappan was the first to move, and struck like lightning. In a flash, his rifle was touching the throat of driver Sebastian, and the muzzle pushed him out of his seat. He took him some distance, and pointing to us, started asking him questions. Sebastian had known us for ten years, but was so terrified he had forgotten our names. Yet he managed to tell Veerappan we were no government officials, but researchers studying wild dogs.

Veerappan continued and asked him if there were any officials in the van. We could make out Sebastian was dazed by the sudden raid. Veerappan was disappointed the van carried no officials or whites. At that point, Sethukuli materialised from somewhere. Twirling his moustache with his left hand, Veerappan started discussing the situation with Sethukuli. Not a whisper escaped the van, although it was filled with twenty-five people. Veerappan told Sebastian to sit with us, and gave instructions to one of his men, who stepped inside the van and came out with a man holding a camera.

Veerappan called him over to where we were sitting and said, 'Sheni, ask him where he is from.' West Bengal, came the answer. Without another question, he asked him to sit by our side. We had become honorary members of the committee that would select candidates for abduction. Veerappan was the chairman of the committee.

We started chatting with the first candidate as we waited for the next. His name was Dr Satyabrata Maithi. He was a scientist at the Central Agricultural Research Institute in Bangalore. Krupa was trying to instil confidence in him. 'You needn't fear. He is looking for specific people. He will let you go. As soon as you get back, could you do us

a favour? Please meet the DFO and tell him we are with Veerappan, and that he is friendly with us. Tell him we will talk our way out, however long it may take,' he said, and gave him the telephone number of my house.

By then Veerappan had brought the second candidate to us, and suggested we ask questions on his behalf.

This one was well turned out, weighed about 90 kg, and was about six feet tall. As soon as he took two steps from the van, he stumbled. Fear had cut off all connections between his brain and his muscles. He stumbled again before he reached us. As soon as he came near us, he looked at Veerappan and gave him a big salute, catching him by surprise. Veerappan looked at him from head to toe, and pointed towards me. He took two steps towards us, stood at attention, and gave me a mini-salute, but this unexpected honour did not delight us.

The interview began. 'Where are you from?'

'Delhi,' a shrill voice emerged out of the depths, completely in contrast with his huge stature. Veerappan's ears pricked up, and he said immediately, 'What's he saying?'

'Please repeat. Where are you from?'

'Punjab!'

Before we could figure out anything, the scared candidate had started blabbering in colloquial Hindi.

Veerappan grumbled, 'What's this? He says Delhi, and the next moment it's Punjab ...'

The man's brain, legs, tongue, and finally his stomach gave up on him. A huge sound made his fear public. He shook in helplessness, like one who had lost control over his bowels. If he was terrified, Veerappan was amused. Anxious to preserve the gravity of the situation, Veerappan

turned aside and suppressed his laughter. Twirling his moustache, he said 'All right, ask him how much he earns.'

On first appearance, he seemed like a senior government official. We asked him some quick questions in Hindi and English. I turned to Veerappan and said, 'He is no government official. He works for some private firm.'

He thought for a bit, and said, 'Okay, ask him to sit there.' He pointed to a place twenty feet from us. The man walked weakly and flopped down.

The interviews continued. No one seemed to make the cut. I was getting bored asking the same questions. I changed the question paper a little for the candidate who came next.

'What is your name?'

'Dubai.'

'Where are you working?'

'Malayalam.'

'He only knows Malayalam. You ask him,' I suggested to Veerappan.

'Tell him to sit there,' he pointed to the corner to which he was consigning failed candidates.

The one who came next must have been from Kerala. He tied up his dhoti the moment he stepped out of the van. The hunter was getting frustrated with the prey he was catching. 'What miserable people! Waste of time ... tell him to get back into the van,' he growled at me.

Not qualifying even for the interview, the man let his dhoti down and boarded the van and sat inside.

The man who came after him was dressed smartly in shirt and trousers. The salute routine continued.

'What work do you do?'

‘Audit ... private shop,’ he said, but seemed frightened even as he spoke.

‘What’s your salary?’

He fumbled for an answer. The questions in the interview weren’t about the length of the Nile or the capital of Australia. Yet the answers didn’t translate into words because of the presence of Veerappan. His fright took the form of urine spreading on his trousers. One of Veerappan’s men noticed it, and giggled.

‘Sheni, what does he say his salary is?’ Veerappan asked. The question-answer session continued.

‘Four to five thousand.’

‘Are you a government official?’

‘No, own business.’

No use, I told Veerappan. ‘Okay, tell him to sit there,’ he said.

In the meantime, one of the candidates who had finished his interview gave me a pathetic look and slowly lifted up his little finger to indicate he wanted to pee. I forwarded the request to Veerappan, who granted it. The man tripped and fell twice before he could walk fifteen feet. Veerappan was observing him. Others started submitting similar requests.

Veerappan was giving up by then. He cursed his fate in Tamil, and was livid that not a single person in the van was fit for kidnapping.

After a while, Veerappan noticed Dr Maithi sitting next to me, and told me to question him.

‘Where are you from?’

‘West Bengal. But I work in Bangalore.’

‘Ask him if it’s a government job,’ Veerappan said.

‘It is an autonomous body,’ said Dr Maithi.

‘It’s not a government job. Some private ...’

‘Where do they get the money from?’ Veerappan asked.

‘They grow paddy and ragi, and study the crops. They share the money they get from farmers,’ I said.

‘What does he say his salary is?’ Veerappan pressed.

I said, ‘What is your salary? Tell less.’ It is likely he misheard ‘tell less’ as ‘tell us’.

‘My take-home is eight thousand five hundred,’ said Maithi.

Veerappan’s ears became alert. ‘How much did he say?’ he said.

I was caught in a dilemma. I had to fail this Maithi somehow. I put my head down and thought, ‘How can I lie? Even if these men don’t understand English, they may know the numbers.’

‘How much did he say his salary is?’ Veerappan asked again.

Left with no option, I blurted out, ‘More than eight thousand.’

‘Is that so?’ said Veerappan. ‘Ask him to sit here.’ That confirmed that he had passed the exam.

Veerappan called out to driver Sebastian. He asked him if any other van was expected.

‘No, this van has to go back and fetch more tourists,’ he replied.

‘Okay, let’s wait,’ said Veerappan.

A child in the van started wailing. Veerappan took out biscuits from his bag and told one of his men to give them to the child.

The gang sat waiting patiently for the next vehicle. After about an hour, we heard a van approaching. Veerappan’s

gang, which had already done a rehearsal, quickly hid behind the bushes and the boulders. Sethukuli again disappeared somewhere. Scenes that we had seen in the movies were unfolding before our very eyes.

## **Krupakar**

A jeep was approaching, looking for the van that hadn't gone back. Four men were cackling and talking loudly in the vehicle, which stopped some thirty metres from the van. Driver Anwar Pasha pulled up his loose trousers and jumped out, putting his hand into his right shirt pocket for a beedi. That was it. In a flash, Veerappan's gang had surrounded the jeep. The men inside froze, and Pasha's hand remained motionless in his pocket. Fear danced on their faces.

Senani, who saw cleaner Krishnappa and drivers Mujeeb and Prakash, exclaimed, 'Poor souls!'

The gang confirmed there was no gun in the jeep. Veerappan left us and walked ahead to do his interviews. He divided the arrivals into two groups: permanent employees and temporary employees. Driver Anwar Pasha, cleaner Krishnappa, pump operator Raju and driver Mujeeb were in the first group, but Mujeeb slipped away saying he was a temporary employee, and joined Moin who was truly a temporary employee.

Veerappan told one of his men to fetch a tape recorder, and recorded his demands and conditions like a chant he had memorised. He took out the cassette and went to hand it to Prakash.

Pasha then understood his situation. He ran towards

Veerappan and started saying something. He then spoke to Mujeeb.

The jeep left with the two 'temporary' employees. Veerappan came and sat with us. I mustered courage and said, 'Veerappan, these people won't serve your purpose. Better let them go.'

Senani repeated it in Tamil. Veerappan didn't like it, but nodded his head as if to say 'Is that so?'

'What's your plan now?' Senani asked after a while. Veerappan pointed to Pasha and said, 'He says the DFO, the ACF, and the rangers will come running if we send word that a tiger is dead. Now that the jeep has gone back, let's wait and watch.'

Pasha came walking towards us and said, 'What luck, sir! The DIG of the Special Task Force was to come with us on the next trip. He would have come in my van, sir. Yesterday, I had twenty foreigners in my van. Not a single one today ...' His desperate mind was looking for a way out.

Veerappan indicated that the candidates who had finished their interviews board the van. Dr Maithi followed them.

'Ey, where's he going? Tell him to sit here,' Veerappan shouted.

That was when Dr Maithi realised he was the third among those kidnapped. But he still looked composed.

An hour passed as we waited for the jeep. When there was no sign of anyone coming that way, Veerappan asked, 'Sheni, what do we do now? Do you think the jeep will return?'

'Will anyone released by Veerappan ever come back?'

Look at you trusting them and waiting here,' Senani said, laughing. It occurred to Veerappan that he was right.

Veerappan called for the tape recorder, and modified his demands. He handed the tape to Sebastian, and told him to give it to the DFO and instruct him to make sure it reached the Chief Minister that very evening. He then turned towards us and yelled for everyone to hear, 'Let's set out. We have to walk 200 km more.'

Sebastian realised he had been released. He started wailing, like one who had just been granted another life. He clasped Veerappan's feet, saying 'You have spared my life, my master!' He took hurried strides toward the van. That was when it dawned on Pasha, Krishnappa and Raju that all paths to their release were closing.

Their faces blanched in fear. Pasha suddenly decided to act, and in a flash fell at Veerappan's feet. 'Sir, I am a sinner. I have lost my wife, and have a little child at home. There's no one to give the child milk. You must be kind and spare my life,' he wailed.

Krishnappa and Raju followed his example. They listed out their difficulties and lamented their ill health, placing themselves at Veerappan's feet. But Veerappan sat like a stone, unmoved.

Sebastian, striding towards the van, heard their wails and came back a few steps. 'Sir, these three men are like my brothers. Please don't kill them,' he pleaded.

Using a handkerchief to dam his tears, he gave them a long look, and started walking towards the van. Dr Maithi sat beside us through all this, without displaying a single emotion.

But the panic and plaintive wails of the three men had

shaken us. It made us aware of our helplessness, and eroded our confidence. Senani and I walked up to Veerappan.

‘Think again ... Your demands are not simple, and you have netted inconsequential people. The government won’t budge. Your plan isn’t sound ... We can’t bear to hear their tales of misery, and their wives and children will be distressed. Let them go. We will come with you as long as you wish, wherever you wish. Taking six of them is as good as taking the two of us. Think about it,’ I said.

Veerappan considered our request. ‘Sheni, I need some numbers. Let them come along, we will see after four days. Shall we get going now? It’s already late,’ he announced. The group, who had been looking at us with hope, was disappointed.

The two of us were chained. The procession began along a forest trail created by elephants. The last man was wiping out the footsteps we were leaving in the slush. We were walking through grass which was six feet high. We had to sweep the blades aside to proceed.

After we had done about 2 km, Veerappan stopped and stood aside. He showed us a patch of grass that looked flattened by a storm. ‘What could this be?’ he quizzed us.

Senani observed it closely, and started putting clues together.

A while later, Veerappan called him aside and said, ‘Look.’ Lying there was the carcass of a sambar stag.

He then showed us where the tiger had lain in wait, where and how it had pounced on the stag, and how the bushes had broken during the struggle. He explained to us graphically how the grass had been flattened during the tussle, and when the tiger had dragged the stag

along. Reconstructing events in the wild comes only with experience and observation. I must say the show Veerappan put up was impressive.

About 3 km from there, we crossed a stream. We walked through difficult terrain, and Veerappan said, 'Let's halt here tonight.' He must have chosen this spot in advance. They had stored some provisions and vessels there. It was about five in the evening.

We sat huddled in a group. Veerappan sat by our side, holding his gun. The men brought around some puffed rice. That was the first meal of the day. We decided to wash our faces before eating it. I pointed to the chains on our hands, and said, "It would be good if you could take these off. They are heavy." Veerappan instructed one of his men to remove them.

That was how our second night as hostages began. We assumed there would be nothing else to eat, and had our fill of the puffed rice. Veerappan was still gathering information from each of us. At eight, a meal of rice and dilute saaru (rasam) was ready.

The coals they kindled at night glowed and kept our camp warm. I woke up twice during the night, and noticed Dr Maithi sitting up sleepless. I felt bad for him. Senani and I must have been the only hostages to have caught any sleep that night. Two men sat by the coals, holding guns and keeping watch through the night.

### 3. Outsourcing the storytelling grandmom

Devdutt Pattanaik



What is the difference between one culture and another? Every culture looks at the world differently and so has different notions of righteousness and propriety and aesthetics (what in India is called Satyam, Shivam and Sundaram). These are transmitted very overtly through stories and less overtly through symbols and rituals. The onus of transmitting them has been with the grandmother. Or at least that is what we assume.

But things have changed in the twentieth century. Suddenly, the grandmother can be outsourced—to books and radio and cinema and television and the Internet. A hundred years ago, few had access to books and fewer still could read. But today, stories are everywhere—even in newspapers and advertisements, shaping our notions of Satyam, Shivam and Sundaram. So who transmits values to our children today? How? And more importantly, what are the values we want to transmit?

Today's grandmother would have been born in post-Independence India, in all probability. She would be around sixty years old today. She would have been raised in a land that celebrated socialism, frugality and Gandhian simplicity. In her youth, as she raised her children, she would have experienced the horrific Emergency, the shattering of the post-Independence dream, the hollow cries to remove poverty, the draconian licence raj that spawned smugglers of the Bollywood screen. She would have envied her cousins who had moved to England and America for a better life. Her children would have been told to study hard so that they could get good jobs either in the government or as accountants, engineers and doctors, or better still, emigrate. And then the liberalization would have come; suddenly, wealth, the Internet and mobile

phones would appear everywhere. Her children don't have to leave India to live a comfortable life. It is possible here in India and now she is the object of her cousins' envy.

Today she sits at home, watches television soap operas, reads scam-drenched newspapers and pulp novels, and condescends (because now it is a choice not an obligation, just like the daughter-in-law's career) to take care of the grandchildren or at least watch over the maid hired to take care of them, while her children are hard at work. She would now be part of her children's double-income, one-kid family, unlike the single income, two-kid family she raised. What stories will she tell her grandchildren? What values will she instil in them?

Will she tell them simplicity and discipline are good, influenced by the socialism era? Or will she tell them that wealth and indulgence are good, influenced by the liberalization era? Will her good-old-days be the stories of Balraj Sahani, the upright farmer of the 1950s; or of Amitabh Bachchan of the '70s, the angry young man; or the stories of Shah Rukh Khan of the '90s, who is rich and brash and romantic? Each story will present a different value system and none will prepare the child for the future that is as yet unknown. What if she chooses to outsource storytelling to television? What if 'traditional' Indian values end up with what the twenty-first century Ekta Kapoor serials were all about—gaudy rituals without meaning, masking dark human manipulations?

People often mistake values for prescriptions. 'Honesty is the best policy' is not a value; it is a prescription. Everybody lies sometimes, depending on the context. Values are about figuring out why honesty is important and why sometimes we succumb to dishonesty. Values are not a set of rules or regulations, they are not a code of conduct; they are the reason why that rule or regulation or code of conduct exists. Often the grandmother cannot articulate it. It has been articulated by the story that the culture considers sacred. Thus, narration of 'sacred' stories is critical for value transmission and not stories per se, a fact that is often forgotten.

Stories are of two types—one set of stories is limited by history and geography, while another set has no such limitations. Ancient Indian sages called the former *smriti*, born of human memory, and the latter *shruti*, that which was heard (by meditating and reflective sages). The former contains values that are subject to the events and impressions of that period. The latter contains values that are

believed to have come from a source that is non-human, hence timeless and universal; these tend to be classified as religious.

A non-religious story may seem non-religious, but they are rooted in religious values. The notion of rebirth will be distinctly absent in cultures that believe in one life. That the Jatakas speak of the past life of the Buddha means that Buddhism values rebirth. That European fairy tales always speak of ‘happily ever after’ means that Europe was influenced by the notion of Heaven found in the Bible.

A grandmother has a choice. She can tell stories influenced by her own memories, by history taught in schools, by stories she has read in novels or seen in Bollywood or teleserials. Or she can tell stories that have always been told as part of culture. The mythological narratives—the story of Shiva and Rama and Krishna and Durga. Or narratives from the Bible or the Koran or the Jatakas. Then comes the political problem. Are these not religious stories? Can culture be separated from religion? Can there be Indian values separate from Hindu or Sikh or Muslim values? Are there human values? The ugly truth is—there are no universal values.

Values are a human construction, not a natural phenomenon. In nature, there are no values. What matters is survival at any cost. The idea of values is a product of human imagination. We imagine a world where might is not right, where even the meek have rights. From this imagination come values, hence culture. And because different people around the world have different imaginations, there are different values and hence different cultures.

When people seek storytelling grandmoms who will pass on values, what people are actually seeking are not ‘values’ but ‘identity’. We fear our children are looking at the world very differently. They are imagining life very differently. We fear they are drifting into another subjective reality constructed by the media and Facebook and Twitter and Cartoon Network. We feel helpless before such massive forces. Identity is not natural, it is cultural; and cultures change over space and time. We want it to be fixed. But we fail because values change over time. What was okay then may not be okay today. Thus the storytelling grandmom has to keep reinventing herself, from generation to generation, and hope that the values she passes on to the grandchildren will sustain them through at least one more generation.

## THE FINGERPRINTS OF HISTORY

by **Steve Jones**

from *Introduction to The Language of the Genes*

In 1902, in Paris, a horrible murder was solved by the great French detective Alphonse Bertillon. He used a piece of new technology which struck fear into the heart of the criminal community. Eight decades later two young girls were killed near the Leicestershire village of Narborough. Again, the murderer was found through a technical advance, although the machinery involved would have been beyond the comprehension of Bertillon. These events link the birth and the coming-of-age of human genetics.

The Parisian killer was trapped because he left a fingerprint at the scene of the crime. For the first time, this was used in evidence as a statement of identity. The idea came from ancient Japan, where a finger pressed into a clay pot identified its maker. The Leicestershire murderer was caught in the same way. A new test looked for individual differences in genetic material. This 'DNA fingerprint' was as much a statement of personal uniqueness as Bertillon's clue or the potter's mark. As usual, life was more complex than science. The killer, a baker called Colin Pitchfork, was caught only after DNA fingerprints had eliminated a young man who had made a false confession and after Pitchfork had persuaded a friend to give a fraudulent blood sample under his name.

The idea that fingerprints could be used to trace criminals came from Charles Darwin's cousin, Francis Galton. He founded the laboratory in which I work at University College London, the first human genetics institute in the

world. Every day I walk past a collection of relics of his life. They include some rows of seeds that show similarities between parents and offspring, an old copy of *The Times* and a brass counting gadget that can be hidden in the palm of the hand. Each is a reminder of Galton. As well as his revolution in detective work Galton was the first person to publish a weather map and the only one to have made a beauty map of Britain, based on a secret ranking of the local women on a scale of one to five (the low point, incidentally, being in Aberdeen).

His biography reveals an unrelieved eccentricity, well illustrated by the titles of a dozen of his three hundred scientific papers: On spectacles for divers; Statistical inquiries into the efficacy of prayer; Nuts and men; The average flush of excitement; Visions of sane persons; Pedigree moths; Arithmetic by smell; Three generations of lunatic cats; Strawberry cure for gout; Cutting a round cake on scientific principles; Good and bad temper in English families; and The relative sensitivity of men and women at the nape of the neck. Galton travelled much in Africa, regarding the natives with some contempt and measuring the buttocks of the women using a sextant and the principles of surveying.

Galton's work led, indirectly, to today's explosion in human genetics. His particular interest was in the inheritance of genius (a class within which he placed himself). In his 1869 book *Hereditary Genius*, he investigated the ancestry of distinguished people and found a tendency for talent to crop up again and again in the same family. This, he suggested, showed that ability was inborn and not acquired. *Hereditary Genius* marked the first attempt to establish patterns of human inheritance with well-defined traits – such as becoming (or failing to become) a judge – rather than with mere speculation about vague qualities such as fecklessness.

Galton and his followers would be astonished at what biology can now do. It still does not understand attributes such as genius (and reputable scientists hardly concern themselves with them), but DNA is much involved in mental and physical illness. Half a million DNA samples have been taken by police in Britain since the test was invented, and the government has a scheme to follow the genes – and the ailments – of the same number of its citizens over two decades in the hope of finding the biological errors responsible for killers like cancer and heart disease. New tests mean that parents can sometimes choose whether to risk the birth of a child with an inborn defect. Ten thousand such illnesses are known and if we include, as we should, all ailments with an inherited component, most people die because of the genes they carry.

Genetics does more than reveal fate. Humans share much of their heritage with other creatures. As Galton himself illustrated with the appropriate impression pasted near that made by Gladstone, the prime minister, chimpanzees have fingerprints. Now we know that much of their DNA is identical to our own (as indeed is that of bananas). All this suggests that humans and apes are close relatives.

Genetics is the key to the past. As every gene must have an ancestor, inherited diversity can be used to piece together a picture of history more complete than from any other source. Each segment of DNA is a message from our forebears and together they contain the whole story of human evolution. Everyone alive today is a living fossil and carries within themselves a record that revisits the birth of humankind. *The Origin of Species* expresses the hope that ‘light will be thrown on the origin of man and his history’. Darwin’s hint that humans share a common descent with all other creatures is now accepted by all scientists, because of the evidence of the genes.

Evolution, the appearance of new forms by the alter-

ation of those already present, is no more than descent with modification. The same is true of language. As a boy, I was amused by the tale of the order going down the line of command to soldiers in the trenches. 'Send reinforcements, we're going to advance' changed to 'Send three and fourpence, we're going to a dance' as it passed from man to man. This simple tale illustrates how accidents, as an inherited message is copied, can lead to change. Because of mutation, life, too, is garbled during transmission.

This book is about inheritance: about the clues of our past, present and future that we all contain. The language of the genes has a simple alphabet, with not twenty-six letters, but four; the DNA bases – adenine, guanine, cytosine and thymine (A, G, C and T for short). They are arranged in words of three letters such as CGA or TGG. Most code for different amino acids, which are themselves joined together to make proteins, the building blocks of the body.

The economy of life's language can be illustrated with an odd quotation from a book called *Gadsby*, written in 1939 by one Ernest Wright: 'I am going to show you how a bunch of bright young folks did find a champion, a man with boys and girls of his own, a man of so dominating and happy individuality that youth was drawn to him as a fly to a sugar bowl.' This sounds somewhat peculiar, as does the rest of the fifty-thousand word book, and it is. The quotation, and the whole work, lacks the letter 'e'. An English sentence can be written with twenty-five letters instead of twenty-six, but only just. Biology manages with a mere four.

Although its vocabulary is simple the genetical message is very long. Each cell in the body contains about six feet of DNA. There are so many cells that if all the DNA in a single human body were stretched out it would reach to the moon and back eight thousand times. Twenty years

ago, the Human Genome Project set out to read the whole of its three thousand million letters, and to publish perhaps the most dreary volume ever written, the equivalent of a dozen or so copies of the *Encyclopaedia Britannica*. The task is now more or less complete. The sequencers followed a grand scientific tradition: the Admiralty, after all, sent the *Beagle* to South America with Darwin on board not because they were interested in evolution but because they knew that if they were to understand (and, with luck, control) the world, the first step was to map it. The chart of the genes, like that of the Americas, has been expensive to make; but – like the theory of evolution itself – it may change our perception of ourselves.

Powerful ideas like inheritance and evolution soon attract myths. Impressed by his studies of genius, Galton founded the science (if that is the right word) of eugenics. Its main aim was ‘to check the birth rate of the Unfit and improve the race by furthering the productivity of the fit by early marriage of the best stock’. He led the new field of human genetics into a blind alley from which it did not emerge for half a century. At his death, he left £45,000 to found the Laboratory of National Eugenics at University College London and, in fine Victorian tradition, £200 to his servant who had worked for him for forty years. His research institute soon changed its name to the Galton Laboratory to escape from the eugenical taint. What became of his servant is not recorded.

Galton’s social ideas and Darwin’s evolutionary insights had a pervasive effect on the intellectual history of the twentieth century. They influenced left and right, liberal and reactionary, and continue – explicitly or otherwise – to do so. Many disparate figures trace their ideas to *The Origin* and to *Hereditary Genius*. All are united by one belief: in biology as destiny, in the power of genes over those who bear them.

The most famous monument in Highgate Cemetery in London, a couple of miles north of today's Galton Laboratory, is that of Karl Marx. Its inscription is well known: 'Philosophers have only interpreted the world. The point, however, is to change it.' Darwinism was soon used in an attempt to live up to that demand. The philosopher Herbert Spencer, buried just across the path from Marx, founded what he called Social Darwinism; the notion that poverty and wealth are inevitable as they reflect the biological rules that govern society. In his day, Spencer was famous. His *Times* obituary claimed that 'England has lost the most widely celebrated and influential of her sons.' Now he is remembered only for that neatly circular phrase 'the survival of the fittest' and for inventing the word 'evolution'.

He wrote with a true philosopher's clarity: 'Evolution is an integration of matter and concomitant dissipation of motion; during which matter passes from an indefinite, incoherent homogeneity, to a definite, coherent heterogeneity, through continuous differentiations and integrations'. Those lucid lines were parodied by a mathematical contemporary: 'A change from a nohowish, untalkaboutable all-alikeness to a somehowish and in general talkaboutable not-all-alikeness by continuous somethingelifications and sticktogetherations.'

Spencer used *The Origin of Species* as a rationale for the excesses of capitalism. The steel magnate Andrew Carnegie was one of many to be impressed by the idea that evolution excuses injustice. He invited Herbert Spencer to Pittsburgh. Unfortunately, the philosopher's response to his trip to see his theories worked out in steel and concrete was that 'Six months' residence here would justify suicide.'

Galton, too, supported the idea of breeding from the best and sterilising those whose inheritance did not meet with his approval. The eugenics movement joined a gentle

concern for the unborn with a brutal rejection of the rights of the living (a combination not unknown today). Galton's main interest in genetics was as a means to forestall the imminent decline of the human race. He claimed that families of 'genius' had fewer children than most and was concerned about what this meant for the future. It was man's duty to interfere with his own evolution. As he said: 'What Nature does blindly and ruthlessly, man may do providently, quickly and kindly.' Perhaps his own childless state helped to explain his anxiety.

Many of the eugenicists shared the highly heritable attributes of wealth, education and social position. Francis Galton gained his affluence from his family of Quaker gunmakers. Much of his agenda was the survival of the richest. Other eugenicists were on the left. They felt that if economies could be planned, so could genes. George Bernard Shaw, at a meeting attended by Galton in his last years, claimed that 'Men and women select their wives and husbands far less carefully than they select their cashiers and cooks.' Later, he wrote that 'Extermination must be put on a scientific basis if it is ever to be carried out humanely and apologetically as well as thoroughly.' Shaw was, no doubt, playing his role as Bad Boy to the Gentry, but subsequent events made his tomfoolery seem even less droll than it did at the time.

Sometimes, such notions were put into practice. Paraguay has an isolated village with an unusual name: Nueva Germania, New Germany. Many of its inhabitants have blonde hair and blue eyes. Their names are not Spanish, but are more likely to be Schutte or Neumann. They are the descendants of an experiment; an attempt to improve humankind. Their ancestors were chosen from the people of Saxony in 1886 by Elisabeth Nietzsche – sister of the philosopher, who himself uttered the immortal phrase 'What in the world has caused more damage than the

follies of the compassionate?’ – as particularly splendid specimens, selected for the purity of their blood. The idea was suggested by Wagner (who once planned to visit). The New Germans were expected to found a community so favoured in its genetic endowment that it would be the seed of a new race of supermen. Elisabeth Nietzsche died in 1935 and Hitler himself wept at her funeral. Today the people of Nueva Germania are poor, inbred and diseased. Their Utopia has failed.

The eugenics movement had an influence elsewhere in the New World. In 1898, Charles Davenport, then professor of evolutionary biology at Harvard, was appointed as Director of the Cold Spring Harbor Laboratory on Long Island Sound. Initially, the Laboratory concentrated on the study of ‘the normal variation of the animals in the harbor, lakes and woods, and the production of abnormalities’. It carried out some of the most important work in early twentieth-century biology.

Soon, Mrs E H Harriman, widow of the railway millionaire, decided to devote part of her fortune to the study of human improvement. The Eugenics Record Office was built next to the original laboratory. It employed two hundred field workers, who were sent out to collect pedigrees. Their 750,000 genetic records included studies of inherited disease and of colour blindness; but also recorded the inheritance of shyness, pauperism, nomadism, and moral control.

Davenport’s work had an important effect on American society. The first years of the twentieth century saw eugenical clubs with prizes for the fittest families and, for the first time, medicine became concerned about whether its duty to the future outweighed the interests of some of those alive today. In Galtonian style, Davenport claimed that: ‘Society must protect itself; as it claims the right to deprive the murderer of his life so also may it annihilate the hideous

serpent of hopelessly vicious protoplasm.’ Twenty-five thousand Americans were sterilised because they might pass feeble-mindedness or criminality to future generations. One judge compared sterilisation with vaccination. The common good, he said, overrode individual rights.

Another political leader had similar views. ‘The unnatural and increasingly rapid growth of the feeble-minded and insane classes, coupled as it is with steady restriction among all the thrifty, energetic and superior stocks constitutes a national and race danger which it is impossible to exaggerate. I feel that the source from which the stream of madness is fed should be cut off and sealed off before another year has passed.’ Such were the words of Winston Churchill when Home Secretary in 1910. His beliefs were seen as so inflammatory by later British governments that they were not made public until 1992.

One of Galton’s followers was the German embryologist Ernst Haeckel. Haeckel was a keen supporter of evolution. He came up with the idea (which later influenced Freud) that every animal re-lived its evolutionary past during its embryonic development. His interest in Galton and Darwin and his belief in inheritance as fate led him to found the Monist League, which had thousands of members before the First World War. It argued for the application of biological rules to society and for the survival of some races – those with the finest heritage – at the expense of others. Haeckel claimed social rules were the natural laws of heredity and adaptation. The evolutionary destiny of the Germans was to overcome inferior peoples: ‘The Germans have deviated furthest from the common form of ape-like men . . . The lower races are psychologically nearer to the animals than to civilized Europeans. We must, therefore, assign a totally different value to their lives.’

In 1900 the arms manufacturer Krupp offered a large prize for the best essay on ‘What can the Theory of

Evolution tell us about Domestic Political Development and the Legislation of the State?’ There were sixty entries. In spite of the interests of capital, the first German eugenic sterilisation was carried out by a socialist doctor (albeit one who claimed that trade union leaders were more likely to be blond than were their followers).

While imprisoned after the Beer Hall Putsch, Hitler read the standard German text on human genetics, *The Principles of Human Heredity and Race Hygiene*, by Eugene Fischer. Fischer was the director of the Berlin Institute for Anthropology, Human Heredity and Eugenics. One of his assistants, Joseph Mengele, later achieved a certain notoriety for his attempts to put Galtonian ideas into practice. Fischer’s book contained a chilling phrase: ‘The question of the quality of our hereditary endowment’ – it said – ‘is a hundred times more important than the dispute over capitalism or socialism.’

His thoughts were echoed in *Mein Kampf*: ‘Whoever is not bodily and spiritually healthy and worthy shall not have the right to pass on his suffering in the body of his children’. Hitler took this to its dreadful conclusion with the murder of those he saw as less favoured in order to breed from the best. The task was taken seriously, with four hundred thousand sterilisations of those deemed unworthy to pass on their genes, sometimes by the secret use of X-rays as the victims filled in forms. Those in charge of the programme in Hamburg estimated that one fifth of its people deserved to be treated in this way.

By 1936 the German Society for Race Hygiene had more than sixty branches and doctorates in racial science were offered at several German universities. Certain peoples were, they claimed, inferior because of inheritance. Half of those at the Wannsee Conference (which decided on the final solution of the Jewish problem) had doctorates and many justified their crimes on scientific grounds. The

eugenics movement in Germany was opposed to abortion (except of the unfit) and imposed stiff penalties – up to ten years in prison – on any doctor rash enough to carry it out. The number of children born to women of approved stock went up by a fifth. The Hitlerian conjunction of extreme right wing views, an obsession with racial purity and a hatred of abortion has its echoes today.

Concern for the purity of German blood reached absurd lengths. One unfortunate member of the National Socialist Party received a transfusion from a Jew after he had been in a road accident. He was brought before a disciplinary court to see if he should be excluded from the Party. Fortunately, the donor had fought in the First World War, so that his Jewish red cells were – just about – acceptable.

The disaster of the Nazi experiment ended the eugenics movement, at least in its primitive form. Its blemished past means that human genetics is marked by the fingerprints of its own history. It sometimes seems to find them hard to wipe off. They should not be forgotten now that the subject is, for the first time, in a position to control the biological future.

Galton and his followers felt free to invent a science which accorded with their own prejudices. They believed that the duty to genes outweighs that to those who bear them. They were filled with extraordinary self-assurance and great weight was placed on their views although in retrospect it is obvious that they knew almost nothing.

Today's new knowledge is as controversial as was the old ignorance. Even so, disputes among modern biologists are not about the vague general issues that obsessed their predecessors. Instead they concern themselves with the fate of individuals rather than of all humanity. Genetics has become a science and, as such, has narrowed its horizons.

Nevertheless, it raises ethical issues which will not go away. The newspapers are filled with debates about the

morals of gene therapy or of human cloning, neither of which show any sign of becoming a reality. However, the diagnosis of defective genes before birth has already shifted the balance between birth and abortion to reduce the number of damaged children. This raises passions, from those who feel – in spite of the high natural wastage of fertilised eggs – that all foetuses are sacred, to others who consider that to pass on a faulty gene is equivalent to child abuse. Genetics presents a more universal difficulty – the problem of knowledge. Soon, it will tell many of us how and when we may die. Already, it is possible to diagnose at birth genes which will kill in childhood, youth or middle age. More will soon be found. Will people want to know that they are at risk of a disease which cannot be treated? Many genes show their effects in those who inherit damaged DNA from each parent. As everyone is likely to pass on a single copy of at least one such gene, will this help to choose a partner or to decide whether to have children?

Attitudes to inborn disease are flexible. In Ghana, babies are sometimes born with an extra finger or toe. Some tribal groups take no notice, others rejoice as it means that the new member of the family will become rich; but others, just a few miles away, regard such children with horror and they are drowned at birth. Even Christianity has seen the genetically unfortunate as less than human. Martin Luther himself declared that Siamese twins were monsters without a soul. Attitudes to genetics will always be influenced by those to abortion, which vary with time and place. St Augustine saw a foetus as part of its mother and not worthy of protection and in spite of its present views the Catholic Church did not condemn abortion until the thirteenth century. Ireland has a constitutional clause that establishes the right to life of the unborn child; while across the Irish Sea abortion until the third month is available almost on demand. Embryo research (which is becoming

important with the discovery that embryonic cells can be used to treat adult disease) is forbidden in Germany but lightly controlled in Britain. All this shows how hard it is to set ethical limits to the new biology.

The problem can be illustrated with some old-fashioned biological discrimination. There has always been prejudice against certain genes, those carried on the chromosomes that determine sex. Women have two 'X' chromosomes, men a single X chromosome and a much smaller 'Y'. All eggs have an X but that of sperm are of two kinds, X or Y. At fertilisation, both XY males and XX females are produced in equal number. Sex is as much a product of genes as are blood groups.

How the value of these genes is judged shows how biological choice can depend on circumstances. Sometimes, Y chromosomes seem to be worth less than Xs. When it comes to wars, murders and executions, males have always been more acceptable victims than females. But the balance can shift. Many parents express a preference for sons, especially as a first-born. Some even try to achieve them. The recipes vary from the heroic to the hopeful. In ancient Greece, to tie off the left testicle was said to do the job, while mediaeval husbands drank wine and lion's blood before copulating under a full moon. Less drastic methods included sex in a north wind and hanging one's underpants on the right side of the bed.

To sell gender is an easy way to make money. It has, after all, a guaranteed fifty per cent success rate. Today's methods vary from the use of baking soda or vinegar at the appropriate moment (to take advantage of a supposed difference in the resistance of X and Y-bearing sperm to acids and alkalis) to sex at particular times of the female cycle. A diet high or low in salt is also said to help. Such recipes are useless and some of those who sell them have been prosecuted for fraud.

Now, fraud is out of date. Sex can be chosen in many ways. One is to separate X and Y sperm and to fertilise a woman with the appropriate type. The methods are not absolute, but shift the ratios by about two to one for males and four to one for females. Since Louise Brown in 1978, thousands of children have been born by in-vitro fertilisation, with sperm added to egg in a test-tube. A single cell can be taken from the embryo and its sex determined (and, indeed, as young male embryos grow faster, simply to choose the largest embryo biases the ratio of males). Only those of the desired gender are implanted into the mother. This technique has led to the birth of hundreds of babies.

Pregnancy termination is a less kind, but equally effective, way of choosing the sex of a child. Aristotle himself felt that a male foetus should be protected from abortion after forty days, but a female only after ninety. A recent survey of geneticists themselves showed that, in Holland, none would accept pregnancy termination just to choose the sex of a child, in Britain one in six, and in Russia nine out of ten. The Indian government was forced to shut down clinics which chose the sex of a baby with a test of the chromosomes of the foetus and aborted those with two Xs. More than two thousand pregnancies a year were ended for this reason in Bombay alone. The main reason was the need for large dowries when daughters were married off. The advertisements said 'Spend six hundred rupees now, save fifty thousand later.' The preference is an old one. A nineteenth-century visitor to Benares recorded that 'Every female infant in the Rajah's family born of a lawful wife, or Rani, was drowned as soon as it was born in a hole in the earth filled with milk.' The rulers' many wives were said to have produced no grown-up daughters for more than a century. The government nowadays pays a bonus for girl babies, but some states now have four females to five males and the country as a whole has a

deficit of girls and women equivalent to the entire British female population.

All these methods interfere with genes. Their acceptability varies from the reasonably uncontentious choice of sperm to a crime where the murder of girl children is concerned. Where to draw the line depends on one's own social, political or religious background; on how acceptable the notion might be that fate should depend on biological merit. All readers of this book would, I imagine, abhor infanticide, and most might feel that to terminate a pregnancy just because it is the wrong sex was also wrong. They might worry less about the choice of X or Y sperm.

The choice of a child's sex can, however, involve more than parental self-indulgence. Sometimes it is a matter of life and death. Many inherited diseases are carried on the X chromosome. In most girls, an abnormal X is masked by a normal copy. Boys do not have this option, as they have but a single X. For this reason, sex-linked abnormalities, as they are known, are much more common in boys than in girls. They can be distressing. Duchenne muscular dystrophy is a wasting disease of the muscles. Symptoms can appear even in three year-olds and affected children have to wear leg braces by the age of seven, are often in a wheelchair by eleven and may die before the age of twenty-five. Parents who have seen one of their sons die of muscular dystrophy are in the agonising position of knowing that any later son has a one in two chance of having inherited it. A couple who have had a son with the illness can scarcely be blamed for a desire to ensure that no later child is affected. They hope to control the quality of their offspring and few will criticise them for doing so. Genetics has changed their ethical balance.

If a couple has a son with muscular dystrophy they know at once that the mother carries the gene. The chance of a second son with the disease is hence far greater than

before. It is still just one in two, so that to terminate all male pregnancies means a real possibility of losing a normal boy. Even those who dislike the idea of choice of a child's sex with X-bearing sperm might change their minds in these circumstances. Others would go further and accept the option of an externally fertilised embryo or the termination of all pregnancies which would produce a son.

Now, such choices have become more precise. The gene for muscular dystrophy has been found and changes in the DNA can show whether a foetus bears it. Hundreds of centres use the test. But the method is far from perfect. The gene can go wrong in many ways and not all of them show up. A foetus that appears normal may hence, in a proportion of cases, carry the gene. This complicates the parents' decision as to whether to continue with a pregnancy. To sample foetal tissues also involves a certain hazard. This has become smaller as technology improves, with a check of foetal cells in the mother's blood, but the risks of the test must themselves be weighed in the moral scales.

As more is found about the genes that cause death not at birth, or in the teens, but in middle or old age the dilemmas increase. Given the opportunity, some might avoid the birth of a baby doomed to dementia through Alzheimer's disease in its forties. Others would argue that forty years of life are not to be dismissed; and that, in four decades of science, the cure may be found.

Decisions about the future of an unborn child will, as a result, more and more be influenced by estimates of risk and of quality: by whether the rights of a foetus depend on its genes. Such judgements are not just scientific decisions, but depend on the society and the people who make them. The debacle of the eugenics movement led to an understandable reluctance even to consider the idea of choices about rights based on inherited merit, but the new knowledge means that they are unavoidable.

Galton himself would have been delighted by the idea of preventing the birth of the damaged. The new eugenics can be overt. The *Chinese People's Daily* is frank in its views. It reported a scheme to ban the marriage of those with mental disease unless they were sterilised with a robust simplification of Mendelism: 'Idiots give birth to idiots!' the eugenical message is often justified on financial grounds. At the Sesquicentennial Exhibition in Philadelphia in 1926 the American Eugenics Society had a board that counted up the \$100 per second supposed to be spent on people with 'bad heredity'. Sixty years later, one proponent of the plan to sequence the human genome claimed that the project would pay for itself by 'curing' schizophrenia – by which he meant the termination of pregnancies carrying the as yet hypothetical and undiscovered gene for the disease. The 1930s were a period of financial squeeze for health care. Seventy years on, the state is still anxious to limit the amount spent on medicine in the face of an inexorable rise in costs, with inborn diseases among the most expensive. There is a fresh danger that genetics will be used as an excuse to discriminate against the handicapped in order to save money.

Genetics – science as a whole – owes its success to the fact that it is reductionist: that to understand a problem, it helps to break it down into its component parts. The human genome project marks the extreme application of such a view. The approach works well in biology as far as it goes, but it only goes so far. Its limits are seen in a phrase once notorious in British politics, the late Prime Minister Mrs Thatcher's statement that 'There is no such thing as society, there are only individuals.' The failures of her philosophy are all around us. To say, with Galton and his successors, 'There are no people, there are only genes' is to fall into the same trap.

In spite of the lessons of the past, there has been a

resurgence of the dangerous and antique myth that biology can explain everything. Some have again begun to claim that we are controlled by our inheritance. They promote a kind of biological fatalism. Humanity, they say, is driven by its inheritance. The predicament of those who fail comes from their own weakness and has little to do with the rest of us. Such *nouvelle* Galtonism suggests that human existence is programmed and that, apart from a little selective pregnancy termination, there is no point in any attempt to change it – which is convenient for those who like things the way they are.

After the Second World War, genetics had – it seemed – at last begun to accept its own limits and to escape its confines as the haunt of the obsessed. Most of those in the field today are cautious about claims that the essence of humanity lies in DNA. Although it can say extraordinary things about ourselves, genetics is one of the few sciences that has reduced its expectations.

In mediaeval Japan, the science of dactylomancy – the interpretation of personality from fingerprints – had it that people with complex patterns were good craftsmen, those with many loops lacked perseverance, while those whose fingers carried an arched pattern were crude characters without mercy. Human genetics has escaped from its dactylomantic origins. The more we learn about inheritance the more it seems that there is to know. The shadow of eugenics has not yet disappeared but is fainter than it was. Now that genetics has matured as a subject it is beginning to reveal an extraordinary portrait of who we are, what we were, and what we may become. This book is about what that picture contains.

## INTERVAL

Jayant Kalkini

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**H**ERE, we have Manjari Sawanth—the plain and scrawny 20 year old who abstractedly watches the muttering TV of the neighbour in the crowded Mahindrakar Chand next to the ice-factory in Naupada. There, we have Nandu or Nandakishore Jagthapa—usher at the Malhar theatre who has just switched on the fans and noisily opened the curtains while the final music of the first show is still blaring out, and the hero stands in front of the mirror in the men's toilet. Their plan to elope early the next morning is as secure tonight as the secret of a bud about to open.

For the last three years, heroes of various hues have been saying to their heroines four times a day for 27 crowded weeks in the same theatre, "come, let's elope." A pretty girl, smiling and gazing into his eyes, springs out of the fountain, and running along the seats in the upper stalls, disappears. Where does she go? Does she melt in the enveloping darkness never to be seen again, not even in dreams? The lights that come on after the happy ending reveal the patches on the hero's trousers and make the frayed edge glow. The hero rushes to put off the lights for the next show. With his torch, he lights up anxious faces, groping hands and stumbling feet. As the audience lose themselves in the world of wonder and fantasy, he switches off the fans in the foyer and, surrounded by dull curtains and loud posters, tries to snatch some rest, undetected by the manager. As he snoozes there, a thousand heroines forget everything, even their names, dazzled by the silver screen. In the darkness, they pledge their bodies and travel into the hero's dream. Caressing and kissing him repeatedly, they declare their love for him. Woken rudely by the loud bell, his heart nearly broken, the hero runs to the door to let the surging crowd out from the dream world. As he counts the used tickets, his hand keeps going back to the red comb jutting out of his pocket. In the rain, without an umbrella, a girl runs through the city

lanes to reach home shivering, and her brother, father and mother shout at her for coming so late.

Nandu had left his house in Vidarbha three years ago for the magic land of Bombay. Since he started working in the theatre, a single atom in the magic land, his home in Vidarbha had become remote to him. Nandu who had been awed even by the people pasting up the nose, eyes and legs of the romantic stars on the hoardings was now one of the them by becoming an usherer. The magic land, in all its colourful splendour, had seemed beyond his reach in Vidarbha. But now it was here in his hands, in the tickets he was punching. While the show was on, Nandu would walk about as though he were in charge of the stupendous dream full of a million tales of joy and sorrow, victory and defeat, song and dance. It was fun to sit outside in the foyer smoking while thousands surrendered themselves to the dark. It was fun to know that they did not know who the culprit was. And then one day, she walked in hesitantly after the show, looking for something. He asked her "What is it?" She said, "My purse." Using his torch, Nandu searched every seat in the upper stall, and said "Don't worry. I'll try and find it for you." He searched for it again before the 6-O' clock show and found it—just the way it happens in films. Curious, he opened it—scraps of paper, coins, two hair pins, rubber band, soap, kumkum and used Cinema tickets. She came back the next afternoon with a small girl in tow. When he gave her the purse saying "Didn't I tell you, you'd get it", she chuckled in delight and hugged her little friend. Since then, whenever she came to the theatre, she managed to catch his eye. Nandu learnt that her name was Manjari when her friend called out to her one day. Once when she was going back, not able to get tickets, he ran from his post at the entrance to get her the tickets. He was thrilled when she could come to the film on the day of its release. And yet, he hadn't spoken to her nor he tried to find out more about her. Whenever she came to the theatre, his friends would tease him—"There, there she is. Your goods have arrived"—and that for some reason, upset him. She never approached him straight nor did she speak to him. She would vanish in no time as though seeing him was all she wanted. It was the same with him. Every time he had a chance to speak to her, he dodged it saying "Next time." Turning back, seeking him with her eyes, she would disappear. The film heroes change their clothes as well as their horses. Arms wide open, the heroines run up the hillock to hug their heroes. They pledge their undying allegiance to each other through joy and sorrow, life and death. Manjari wakes in

the night to collect water. Nandu lies awake waiting for the new day to dawn.

The way back from the theatre is full of posters soaking in the thin rain. Coal stoves in dingy little houses. Manjari's mother often opens the cupboard and stares at her possessions—some steel vessels, a couple of dresses glistening among the naphthalene balls. The cupboard seems to fear the weddings that are to come. Her father shouts at her for keeping the cupboard open for too long crying, she locks it up safely. If they are invited for weddings, they leave early in the morning and return only after dinner. If they are invited only for the evening, they skip lunch and build up good appetite for dinner. She ties the *rakhi* to the very hands that furtively touch her on the streets. In the dark only a few feet away, her elder brother who had beaten up his wife just a few minutes ago, is now mounted upon her, breathing heavily, stifled by all this, Manjari breathes more easily at the thought of the new spark flitting across Nandu's eyes.

Emerging from the theatre, Nandu wonders about Mahindrakar Chawl till afternoon hoping Manjari would step out to post a letter, buy rations or drop the neighbour's child to school. At times, his eyes light up, more often, he returns to the theatre to let the sun into the matinee show, as usual. Neither is aware of anything beyond this magic that makes their eyes sparkle.

It was the celebration of a jubilee film. All the workers in the theatre were given new trousers and shirts; the stars arrived. On that occasion, Manjari of Mahindrakar Chawl got a special pass. Her blouse was pressed with a makeshift iron; the jasmines in her hair had been carefully preserved from the night before by sprinkling water on them. A hurried meeting near the parked cars, half an hour earlier. He was entrusted with the job of offering "Gold Spot" for the stars, while she enjoyed ogling the stars. In that brief meeting, did their fingers intertwine? Holding hands coyly, did they wonder, laugh or sweat ... ? He vanished; she went in looking for her seat, E-28. They met again during the interval. He waited for her with a big cup of ice cream while she waited for the stars to make their appearance. He called out to her. She walked up to him. Did that handsome boy sitting next to her follow her? No, he walked away. She grabbed the ice cream from his hands and asked, "What about you?" "You have it," he said. She ate it watching the glamorous women all around her. He was hoping she would offer him a spoonful, but she didn't. Hesitantly, his voice nearly inaudible, he asked her "Won't you give me some?" Either she didn't hear him or she possibly did, and yet being lost in the China silks all around her, did not notice; anyhow, she

finished it. "Can I get you another?" he asked. Preoccupied, she nodded. He ran for the ice cream hoping she'd share it with him this time. By then, people started rushing to their seats. Lest she missed the stars, she said she'd eat it inside. He walked towards the side wings with a funny ache. The manager was screaming at everyone—so he stayed outside till the show ended. Then, she was not seen in the milling crowd nor did he look for her. The next day, it rained, the rain drops rapped on the glass windows. He sat inside watching a Malayalam film even though he did not understand much of it. The plump women in the film provoked him no end. In the evening, he roamed around Mahindrakar Chawl. The film continued to haunt him. She came and he felt strangely relieved. The actual meeting seemed less thrilling than the time before and after meeting. He went back saying "We'll meet tomorrow." Then both of them would fantasize about the next meeting ... She says this and he replies thus; in turn, she says ... then he kisses her and she rests her head on his chest, with her eyes closed ... etc. She turns over to the other side in the rattling rain while he changes his clothes.

The posters speak to each other—"Why don't you buy a red T-shirt for yourself?" "I'd bought flowers for you yesterday. They wilted."

"You always eat out in hotels, what fun?"

"Don't you think of me when you watch good T.V. programmes next door?"

"Why do you wear torn trousers?"

"Just wait until I start my own business."

Nandu is now tired of his routine in the theatre. Surely, there is a life—different and varied—outside Vidarbha and Malhar. He must get out of these repeat shows of the same films. But where, how and why? He wondered while eating in wayside hotels, pressing his clothes by spreading them under the bed and while being manhandled by the rowdies who bought tickets in black. Manjari quietly provided him with the strange inspiration he so needed to leave. Like him, Manjari also wondered while eagerly waiting for the mutton her father brought home annually and while wearing the same clothes, darned over and over again. She floated in the intoxication of his memory as though, he would help her to transcend all this. The way out of a life of sweeping and mopping, 'Sunlight' bar soap and kerosene were dimly visible in the warmth of his company. Yet, both often felt lost, not being able to remember each others faces distinctly.

"Let's elope"—who said this first, was not very clear. But there

was no doubt that it was said. Even as the words were uttered, their decision got crystallized and they felt the excitement of a new birth. They decided to meet near Jambalinaka and leave together from there. Where to? That they would decide tomorrow. For both, there was the long night until morning. For Manjari, the night was the doorway to a whole new life. For Nandu, it was a night that could arouse the strength in his sinews. She stuffed her good clothes and a saree into a bag and hung it on a nail near the gutter to pick it up while she ostensibly stepped out to fetch milk in the morning. Nandu tried hard to get back the ten rupees he'd lent to the boy working at the soda stall. The salary he'd collected the previous day lay snugly in his pocket. Three hundred rupees should be enough to make his getaway. Then he would work for others till he could set up some business on his own. Inside the theatre, the last show was in progress. The photography in the display window seemed to blink in the empty foyer. Nandu got restless thinking of the infinite possibilities of the morning to come. In her anxiety that she'd be missing out on the TV programmes, Manjari watched all the programmes on TV before she returned home.

The show finished at twelve and the crowd cleared out of the theatre. Nandu checked the seats with his torch. The lonely darkness in the theatre scared him as much as the night that awaited him. He curled up in a corner. Manjari, who woke up at three O'clock once, eased herself and slept again. Nandu, waking at five, had his bath and got out after packing all his possessions into a small, sling bag. Manjari also stepped out of her house at the same time. Both were conscious of how crowded the place was even at that early hour. Reaching Jambalinaka earlier, Nandu waited for a while. He eyed the lorries that were unloading the vegetables in the market square. He saw the sleepy queue near the milk booth. Limping hesitantly, Manjari joined him. Nandu looked around smiling nervously and suggested that they have tea. They walked along the main road adjacent to the lake.

Some young people were already there so early, rowing boats in the lake. As the cool breeze of the dawn blew from the lake, Manjari and Nandu half ran as though distressed by the immense possibilities of their newly-won freedom. He stopped near a way-side tea shop. "I'm famished. I need to eat something," insisted Manjari. So they got into the hotel facing the station and settled down at a rather deserted corner table. Before the waiter arrived, perhaps just to reassure himself, Nandu tried to hug her with his right arm; but failed. Something in her ear rings or necklace poked him. It took them all

she hurried towards the S.T. Bus-stand and without as much as even finding out where it was going, she got into a bus bound towards the industrial estate.

The city was full of flower shops everywhere. There were posters all around. Having infused each other with the intensity of a new birth, both Manjari Sawanth and Nandakishore Jagthapa now started thinking of each other to forget their fears on the new journey. □

Translated by Vanamala Viswanatha

## The Amateur Scientist

Richard P. Feynman

When I was a kid I had a “lab.” It wasn’t a laboratory in the sense that I would measure, or do important experiments.

Instead, I would play: I’d make a motor, I’d make a gadget that would go off when something passed a photocell. I’d play around with selenium; I was piddling around all the time. I did calculate a little bit for the lamp bank, a series of switches and bulbs I used as resistors to control voltages. But all that was for application. I never did any laboratory kind of experiments.

I also had a microscope and loved to watch things under the microscope. It took patience: I would get something under the microscope and I would watch it interminably. I saw many interesting things, like everybody sees - a diatom slowly making its way across the slide, and so on.

One day I was watching a paramecium and I saw something that was not described in the books I got in school - in college, even. These books always simplify things so the world will be more like they want it to be: When they’re talking about the behavior of animals, they always start out with, “The paramecium is extremely simple; it has a simple behavior. It turns as its slipper shape moves through the water until it hits something, at which time it recoils, turns through an angle, and then starts out again.”

It isn’t really right. First of all, as everybody knows, the paramecia, from time to time, conjugate with each other - they meet and exchange nuclei. How do they decide when it’s time to do that? (Never mind; that’s not my observation.)

I watched these paramecia hit something, recoil, turn through an angle, and go again. The idea that it’s mechanical, like a computer program - it doesn’t look that way. They go different distances, they recoil different distances, they turn through angles that are different in various cases; they don’t always turn to the right; they’re very irregular. It looks random, because you don’t know what they’re hitting; you don’t know all the chemicals they’re smelling, or what.

One of the things I wanted to watch was what happens to the paramecium when the water that it’s in dries up. It was claimed that the paramecium can dry up into a sort of hardened seed. I had a drop of water on the slide under my microscope, and in the drop of water was a paramecium and some “grass” - at the scale of the paramecium, it looked like a network of jackstraws. As the drop of water evaporated, over a time of fifteen or twenty minutes, the paramecium got into a tighter and tighter situation: there was more and more of this back-and-forth until it could hardly move. It was stuck between these “sticks,” almost

jammed.

Then I saw something I had never seen or heard of: the paramecium lost its shape. It could flex itself, like an amoeba. It began to push itself against one of the sticks, and began dividing into two prongs until the division was about halfway up the paramecium, at which time it decided that wasn't a very good idea, and backed away.

So my impression of these animals is that their behavior is much too simplified in the books. It is not so utterly mechanical or one-dimensional as they say. They should describe the behavior of these simple animals correctly. Until we see how many dimensions of behavior even a one-celled animal has, we won't be able to fully understand the behavior of more complicated animals.

I also enjoyed watching hugs. I had an insect book when I was about thirteen. It said that dragonflies are not harmful; they don't sting. In our neighborhood it was well known that "darning needles," as we called them, were very dangerous when they'd sting. So if we were outside somewhere playing baseball, or something, and one of these things would fly around, everybody would run for cover, waving their arms, yelling, "A darning needle! A darning needle!"

So one day I was on the beach, and I'd just read this book that said dragonflies don't sting. A darning needle came along, and everybody was screaming and running around, and I just sat there. "Don't worry!" I said. "Darning needles don't sting!"

The thing landed on my foot. Everybody was yelling and it was a big mess, because this darning needle was sitting on my foot, And there I was, this scientific wonder, saying it wasn't going to sting me.

You're sure this is a story that's going to come out that it stings me - but it didn't. The book was right. But I did sweat a bit.

I also had a little hand microscope. It was a toy microscope, and I pulled the magnification piece out of it, and would hold it in my hand like a magnifying glass, even though it was a microscope of forty or fifty power. With care you could hold the focus. So I could go around and look at things right out in the street.

So when I was in graduate school at Princeton, I once took it out of my pocket to look at some ants that were crawling around on some ivy. I had to exclaim out loud, I was so excited. What I saw was an ant and an aphid, which ants take care of - they carry them from plant to plant if the plant they're on is dying. In return the ants get partially digested aphid juice, called "honeydew." I knew that; my father had told me about it, but I had never seen it.

So here was this aphid and sure enough, an ant came along, and patted it with its feet - all around the aphid, pat, pat, pat, pat, pat. This was terribly exciting!

Then the juice came out of the back of the aphid. And because it was magnified, it looked like a big, beautiful, glistening ball, like a balloon, because of the surface tension. Because the microscope wasn't very good, the drop was colored a little bit from chromatic aberration in the lens - it was a gorgeous thing!

The ant took this ball in its two front feet, lifted it off the aphid, and held it. The world is so different at that scale that you can pick up water and hold it! The ants probably have a fatty or greasy material on their legs that doesn't break the surface tension of the water when they hold it up. Then the ant broke the surface of the drop with its mouth, and the surface tension collapsed the drop right into his gut. It was very interesting to see this whole thing happen!

In my room at Princeton I had a bay window with a U-shaped windowsill. One day some ants came out on the windowsill and wandered around a little bit. I got curious as to how they found things. I wondered, how do they know where to go? Can they tell each other where food is, like bees can? Do they have any sense of geometry?

This is all amateurish; everybody knows the answer, but I didn't know the answer, so the first thing I did was to stretch some string across the U of the bay window and hang a piece of folded cardboard with sugar on it from the string. The idea of this was to isolate the sugar from the ants, so they wouldn't find it accidentally. I wanted to have everything under control.

Next I made a lot of little strips of paper and put a fold in them, so I could pick up ants and ferry them from one place to another. I put the folded strips of paper in two places:

Some were by the sugar (hanging from the string), and the others were near the ants in a particular location. I sat there all afternoon, reading and watching, until an ant happened to walk onto one of my little paper ferries. Then I took him over to the sugar. After a few ants had been ferried over to the sugar, one of them accidentally walked onto one of the ferries nearby, and I carried him back.

I wanted to see how long it would take the other ants to get the message to go to the "ferry terminal." It started slowly but rapidly increased until I was going mad ferrying the ants back and forth.

But suddenly, when everything was going strong, I began to deliver the ants from the sugar to a different spot. The question now was, does the ant learn to go back to where it just came from, or does it go where it went the time before?

After a while there were practically no ants going to the first place (which would take them to the sugar), whereas there were many ants at the second place, milling around, trying to find the sugar. So I figured out so far that they went where they just came from.

In another experiment, I laid out a lot of glass microscope slides, and got the

ants to walk on them, back and forth, to some sugar I put on the windowsill. Then, by replacing an old slide with a new one, or by rearranging the slides, I could demonstrate that the ants had no sense of geometry: they couldn't figure out where something was. If they went to the sugar one way and there was a shorter way back, they would never figure out the short way.

It was also pretty clear from rearranging the glass slides that the ants left some sort of trail. So then came a lot of easy experiments to find out how long it takes a trail to dry up, whether it can be easily wiped off, and so on. I also found out the trail wasn't directional. If I'd pick up an ant on a piece of paper, turn him around and around, and then put him back onto the trail, he wouldn't know that he was going the wrong way until he met another ant. (Later, in Brazil, I noticed some leaf-cutting ants and tried the same experiment on them. They could tell, within a few steps, whether they were going toward the food or away from it - presumably from the trail, which might be a series of smells in a pattern: A, B, space, A, B, space, and so on.)

I tried at one point to make the ants go around in a circle, but I didn't have enough patience to set it up. I could see no reason, other than lack of patience, why it couldn't be done.

One thing that made experimenting difficult was that breathing on the ants made them scurry. It must be an instinctive thing against some animal that eats them or disturbs them. I don't know if it was the warmth, the moisture, or the smell of my breath that bothered them, but I always had to hold my breath and kind of look to one side so as not to confuse the experiment while I was ferrying the ants.

One question that I wondered about was why the ant trails look so straight and nice. The ants look as if they know what they're doing, as if they have a good sense of geometry. Yet the experiments that I did to try to demonstrate their sense of geometry didn't work.

Many years later, when I was at Caltech and lived in a little house on Alameda Street, some ants came out around the bathtub. I thought, "This is a great opportunity." I put some sugar on the other end of the bathtub, and sat there the whole afternoon until an ant finally found the sugar. It's only a question of patience.

The moment the ant found the sugar, I picked up a colored pencil that I had ready (I had previously done experiments indicating that the ants don't give a damn about pencil marks - they walk right over them - so I knew I wasn't disturbing anything), and behind where the ant went I drew a line so I could tell where his trail was. The ant wandered a little bit wrong to get back to the hole, so the line was quite wiggly unlike a typical ant trail.

When the next ant to find the sugar began to go back, I marked his trail with another color. (By the way he followed the first ant's return trail back, rather than his own incoming trail. My theory is that when an ant has found some food, he leaves a much stronger trail than when he's just wandering around.)

This second ant was in a great hurry and followed, pretty much, the original trail. But because he was going so fast he would go straight out, as if he were coasting, when the trail was wiggly. Often, as the ant was "coasting," he would find the trail again. Already it was apparent that the second ant's return was slightly straighter. With successive ants the same "improvement" of the trail by hurriedly and carelessly "following" it occurred.

I followed eight or ten ants with my pencil until their trails became a neat line right along the bathtub. It's something like sketching: You draw a lousy line at first; then you go over it a few times and it makes a nice line after a while.

I remember that when I was a kid my father would tell me how wonderful ants are, and how they cooperate. I would watch very carefully three or four ants carrying a little piece of chocolate back to their nest. At first glance it looks like efficient, marvelous, brilliant cooperation. But if you look at it carefully you'll see that it's nothing of the kind: They're all behaving as if the chocolate is held up by something else. They pull at it one way or the other way. An ant may crawl over it while it's being pulled at by the others. It wobbles, it wiggles, the directions are all confused. The chocolate doesn't move in a nice way toward the nest.

The Brazilian leaf-cutting ants, which are otherwise so marvelous, have a very interesting stupidity associated with them that I'm surprised hasn't evolved out. It takes considerable work for the ant to cut the circular arc in order to get a piece of leaf. When the cutting is done, there's a fifty-fifty chance that the ant will pull on the wrong side, letting the piece he just cut fall to the ground. Half the time, the ant will yank and pull and yank and pull on the wrong part of the leaf, until it gives up and starts to cut another piece. There is no attempt to pick up a piece that it, or any other ant, has already cut. So it's quite obvious, if you watch very carefully that it's not a brilliant business of cutting leaves and carrying them away; they go to a leaf, cut an arc, and pick the wrong side half the time while the right piece falls down.

In Princeton the ants found my larder, where I had jelly and bread and stuff, which was quite a distance from the window. A long line of ants marched along the floor across the living room. It was during the time I was doing these experiments on the ants, so I thought to myself, "What can I do to stop them from coming to my larder without killing any ants? No poison; you gotta be humane to the ants!"

What I did was this: In preparation, I put a bit of sugar about six or eight inches from their entry point into the room, that they didn't know about. Then I made those ferry things again, and whenever an ant returning with food walked onto my little ferry I'd carry him over and put him on the sugar. Any ant coming toward the larder that walked onto a ferry I also carried over to the sugar. Eventually the ants found their way from the sugar to their hole, so this new trail was being doubly reinforced, while the old trail was being used less and less. I knew that after half an hour or so the old trail would dry up, and in an hour they were out of my larder. I didn't wash the floor; I didn't do anything but ferry ants.

## 4. TO EVERY ENGLISHMAN LIVING IN INDIA.

Second Letter.

**Gandhiji**

'You are as much slaves-as we.'

Dear friend,

This is the second time I venture to address you. I know that most of you detest non-co-operation. But I would invite you to isolate two of my activities from the rest if you can give me credit for honestly.

I cannot prove my honesty if you do not feel it. Some of my Indian friends charge me with camouflage when I say we need not hate Englishmen whilst we may hate the system they have established. I am trying to show them that one may detest the wickedness of a brother without hating him. Jesus denounced the wickedness, of the Scribes and the Pharisees, but he did not hate them. He did not enunciate this law of love for the man and hate for the evil in him for himself only, but he taught the doctrine for universal practice. Indeed I find it in all the scriptures of the world. I claim to be a fairly accurate student of human nature and vivisection of my own failings. I have discovered that man is superior to the system he propounds. And so I feel that you as an individual are infinitely better than the system you have evolved as a corporation. Each one of my country men in Amritsar on that fateful 10th of April was better than the crowd of which he was a member.

He as a man would have declined to kill those innocent English bank managers. But in that crowd, many a man forgot himself. Hence it is that an Englishman in office is different from an Englishman outside. Similarly an Englishman in India is different from an Englishman in England. Here in India you belong to a system that is vile beyond description. It is possible therefore for me to condemn the system in the strongest terms without considering you to be bad and without imputing bad motives to every Englishman. You are as much slaves of the system as we are. I want you therefore to reciprocate and not impute to me motives which you cannot read in the

written word. I give you the whole of my motive when I tell you that I am impatient to end or mend a system which has made India subservient to a handful of you and which has made Englishmen feel secure only in the shadow of the forts and the guns that obtrude themselves on one's notice in India. It is a degrading spectacle for you and for us. Our corporate life is based on mutual distrust and fear. This you will admit, I think to every Englishman living in India. Second letter. 35 unmanly. A system that is responsible for such a state of things is necessarily satanic. You should be able to live in India as an integral part of its people and not always as foreign exploiters. One thousand Indian lives against one English life is a doctrine of dark despair and yet believe me, it was enunciated in 1919 by the highest of you in the land. I almost feel tempted to invite you to join me in destroying a system that has dragged both you and us down. But I feel I cannot as yet do so. We have not shown ourselves earnest, self-sacrificing and self-restrained enough for that consummation. But I do ask you to help us in the boycott of foreign cloth and in the anti-drink campaign.

The Lancashire cloth, as English historians have shown, was forced upon India and her own world-famed manufactures were deliberately and systematically ruined. India is therefore at the mercy not only of Lancashire but also of Japan, France and America. Just see what this has meant to India. We send out of India every year sixty crores (more or less) of rupees for cloth. We grow enough cotton for our own cloth. Is it not madness to send cotton outside India and have it manufactured into cloth there and shipped to us? Was it right to reduce India to such a helpless state? •

36 Famous Letters of Mahatma Gandhi. A hundred and fifty years ago we manufactured all our cloth. Our women spun fine yarn in their own cottages and supplemented the earnings of their husbands. The village weavers wove that yarn. It was an indispensable part of national economy in a vast agricultural country like ours. It enabled us in a most natural manner to utilise our leisure. Today our women have lost the cunning of their hands and the enforced idleness of millions has impoverished the land. Many weavers have become sweepers. Some have taken to the profession of hired soldiers. Half the race of artistic weavers has died out, and the other half is weaving imported foreign yarn for want of finer handspun yarn.

You will perhaps now understand what boycott of foreign cloth means to India. It is not devised as a punishment. If the Government were today to redress the Khilafat and the Punjab wrongs and consent to India attaining immediate Swaraj the boycott movement must still continue. Swaraj means at least the power to conserve Indian industries that are vital to the economic existence of the nation and to prohibit such imports as may interfere with such existence. Agriculture and hand-spinning are the two lungs of the national body. They must be protected against consumption at any cost.

To ever" } Englishman Living in India. Second letter. 37

This matter does not admit of any waiting. The interests of the foreign manufacturers and the Indian importers cannot be considered when the whole nation is starving for want of a large productive occupation ancillary to agriculture. you will not mustp.ke this for a movement of general boycott of foreign goods. India does not wish to shut herself out of international commerce. Things other than those which can be better made outside India, she must gracefully receive upon terms and conditions to the contracting parties. Nothing can be forced upon her. But I do not wish to peep into the future. I am certainly hoping that before long it would be possible for India to cooperate with England on equal terms. Then will be the time for examining trade relations. For the time being I beseech your help in bringing about a boycott of foreign cloth. Of similar and equal importance is the campaign against drink. The liquor shops are an insufferable curse imposed on society. There never was so much awakening among the people as now upon this question. I admit that here it is the Indian Ministers who can help more than you can. But I would like you to speak out your mind clearly on the question..

38 Famous Letters of Mahatma Gandhi.

Under every system of Government, total prohibition so far as I can see will be insisted upon by the nation. You can assist the growth of the ever-rising agitation by throwing in the weight of your influence on the side of the nation.

I am,

Your faithful friend,

M.K.GANDHI.

## 5. GIRL

By Jamaica Kincaid

Wash the white clothes on Monday and put them on the stone heap; wash the color clothes on Tuesday and put them on the clothesline to dry; don't walk bare-head in the hot sun; cook pumpkin fritters in very hot sweet oil; soak your little cloths right after you take them off; when buying cotton to make yourself a nice blouse, be sure that it doesn't have gum in it, because that way it won't hold up well after a wash; soak salt fish overnight before you cook it; is it true that you sing benna in Sunday school?; always eat your food in such a way that it won't turn someone else's stomach; on Sundays try to walk like a lady and not like the slut you are so bent on becoming; don't sing benna in Sunday school; you mustn't speak to wharf-rat boys, not even to give directions; don't eat fruits on the street—flies will follow you; *but I don't sing benna on Sundays at all and never in Sunday school*; this is how to sew on a button; this is how to make a buttonhole for the button you have just sewed on; this is how to hem a dress when you see the hem coming down and so to prevent yourself from looking like the slut I know you are so bent on becoming; this is how you iron your father's khaki shirt so that it doesn't have a crease; this is how you iron your father's khaki pants so that they don't have a crease; this is how you grow okra—far from the house, because okra tree harbors red ants; when you are growing dasheen, make sure it gets plenty of water or else it makes your throat itch when you are eating it; this is how you sweep a corner; this is how you sweep a whole house; this is how you sweep a yard; this is how you smile to someone you don't like too much; this is how you smile to someone you don't like at all; this is how you smile to someone you like completely; this is how you set a table for tea; this is how you set a table for dinner; this is how you set a table for dinner with an important guest; this is how you set a table for lunch; this is how you set a table for breakfast; this is how to behave in the presence of men who don't know you very well, and this way they won't recognize immediately the slut I have warned you against becoming; be sure to wash every day, even if it is with your own spit; don't squat down to play marbles—you are not a boy, you know; don't pick people's flowers—you might catch something; don't throw stones at blackbirds, because it might not be a blackbird at all; this is how to make a bread pudding; this is how to make doukona; this is how to make pepper pot; this is how to make a good medicine for a cold; this is how to make a good medicine to throw away a child before it even becomes a child; this is how to catch a fish; this is how to throw back a fish you don't like, and that way something bad won't fall on you; this is how to bully a man; this is how a man bullies you; this is how to love a man, and if this doesn't work there are other ways, and if they don't work don't feel too bad about giving up; this is how to spit up in the air if you feel like it, and this is how to move quick so that it doesn't fall on you; this is how to make ends meet; always squeeze bread to make sure it's fresh; *but what if the baker won't let me feel*

*the bread?*; you mean to say that after all you are really going to be the kind of woman who the baker won't let near the bread?

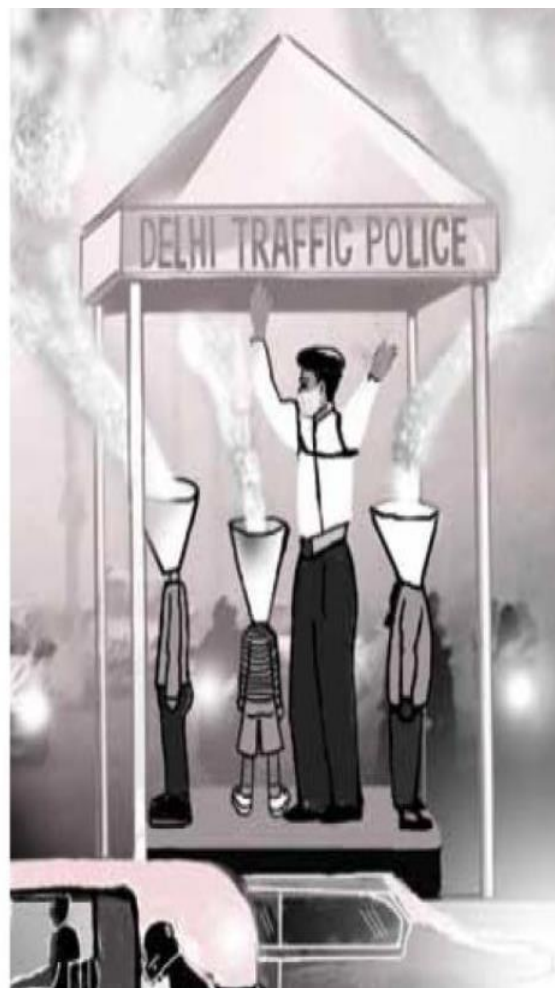
## A Modest Proposal

For preventing the children of poor people in India from being a burden to their parents or the economy, and for making them beneficial to the public

KUSHANAVA CHOUDHURY

The roads of the capital are shrouded in a haze. The toxicity of the air is at many times the permitted level by global standards. International flights are being cancelled. Visiting cricket teams refuse to play on our fields. Schools are often closed. Simply breathing in Delhi is now equivalent to smoking around 40 cigarettes a day.

We act as if we had not expected this occurrence and cannot understand how to solve it. We purchase face masks and air purifiers and grumble about the air. We wait for it to pass. But it never passes, because the air is toxic all year round. Only for a very short period, in the rainy season, does the amount of particulate matter dip to permissible levels. As a father, I am deeply concerned about the permanent damage being done to my three-year-old daughter's health, as indeed to the health of all the city's children. Even the protection I can afford to provide my child, by travelling in the metro or in air-conditioned cars and having her sleeping with an air purifier at night, cannot shield her from all exposure to the air.



It makes me depressed to drive through this great capital when I see the streets and traffic intersections crowded with homeless people in rags, followed by children of three or four, banging on the windows of every passing car demanding alms, exposed to air of a toxicity I shudder to imagine. They have no air-conditioned cars or air purifiers, and are forced to employ all their time on the roads, begging for sustenance.

I think everyone would agree that the prodigious number of children at our intersections tagging along with their mothers, and frequently their fathers, is in the present deplorable state of the national capital a very great tragedy, even aside from the fact that they obstruct traffic, and are a threat to themselves and others.

But my thoughts at this time are far from being confined to only the children of professed beggars; they are of a much greater extent, and consider the whole population of infants in the national capital born of parents who are not able to provide them with the kind of care and protection they need to become healthy, productive members of society. Is anyone thinking about their, and our, collective future? In the absence of any genuine schemes to improve their condition, the reality is that many



children, too many, continue to be employed as labourers in hotels and shops, in carpet-making and embroidery workshops, and in a whole range of industries, so that they can contribute to their and their families' upkeep. But even their pathetic state is not as alarming as that of children who are abducted, trafficked and forced into sex work, or into slave-like labour in sugarcane fields or brick kilns. Under these circumstances, perhaps it is time to think of solutions which are out of the ordinary, which reflect visionary thinking about the future instead of simply parroting the same old failed mantras of universal education and poverty reduction.

The population of the capital is estimated at 19 million people, of which, according to my calcula-

tion, 4 million are children aged four and below. From this, we can subtract 50,000 children like my own child, whose parents are able to provide them with the best education and equip them to be global citizens of the future. We can also perhaps subtract, at most, an additional 200,000 children whose parents are conscientious and able enough to guarantee their progeny a basic private-school education, which will at least ensure that they gain some fluency in English and thus become employable in service positions with reputable Indian or multinational firms. This being granted, there will remain 3.75 million children. I can again subtract 200,000 children of poor parents who will be admitted to good private schools under the present regime of quotas, study hard and thrive, and another 50,000 who may demonstrate special talents, as the children of the poor often do, as, say, singers on Indian Idol, or Slumdog Millionaires or tearaway fast bowlers for the Indian Premier League. But there still remain 3.5 million children with no future.

The question, therefore, is how these millions of children shall be made to become proud, productive and contributing members of our society. Unlike the children of peasants in the countryside, they can neither work the land nor make handicrafts. And few are able to develop the fine motor skills required for pickpocketing till they reach the age of ten—except in certain parts of the country such as Kolkata, where I was informed by an officer in a boys' probationary home that many of the inmates were third-generation pickpockets, who began practising at the tender age of four by discreetly slicing open bags of rice, and were renowned for the quickest proficiency in the art.

In Delhi, in interviews with employers in embroidery workshops and roadside dhabas as part of a social-scientific study of an industrial neighbourhood, my colleagues and I discovered that children below the age of ten have no economic value. Parents cannot sell children past that age for above ₹3,000, and even then a child needs to work for many years to repay the employer's investment.

Let me now humbly propose my own thoughts on this matter, which I hope

you will read through in full without prejudice.

Research by paediatric pulmonologists at the All India Institute of Medical Sciences shows that a child of the age of two, when well nursed and cared for, can each day inhale and absorb, without immediately falling ill, a quantity of pollutants equivalent to that produced by as many as 40 cigarettes. If properly conditioned, particularly to nurture lung capacity, by the age of four a child's daily intake and absorption of pollutants can reach quantities closer to those produced by 200 cigarettes.

I therefore propose that the capital's 3.5 million otherwise future-less children be trained to be Purifying Organisms for Toxic Air, or POTAs, for our city. At the age of two, they shall be sent to organic farms in the Himalayan foothills, where they will receive fresh food, clean air and water, and a daily regime of eight hours of yoga breathing exercises. Upon reaching the age of four, they shall be fitted with enormous funnels in their gullets, and organised into teams of gaspers, to be posted in rotating shifts at intersections across the National Capital Region.

I have spoken to highly placed officials in the Delhi government, who have committed to initially hire 100,000 POTAs on a contract basis to serve at five busy intersections—at Ashram, Anand Vihar ISBT, Punjabi Bagh, ITO and Azadpur Mandi—and to arrange for enough open green space at these locations to accommodate large teams of gaspers and offset their carbon-dioxide emissions. Delhi's Indira Gandhi International Airport has pledged to hire 375,000 POTAs to be stationed along all final-approach routes to improve visibility. The Delhi and District Cricket Association has agreed that visiting international cricket teams will be provided with POTAs as per their requirements. The starting allocation will be for a cordon of five gaspers around each foreign fielder from a third-world country, and seven around each fielder from a first-world one. Fast bowlers will be granted retinues of up to 20 gaspers to chase them on their run-ups, medium-pacers up to 15, and spinners up to 12, upon request. Additionally, batsmen will be

allowed up to 20 POTAs each to accompany them while running between the wickets.

POTAs who prove to be exceptional gaspers will be rewarded with plush postings at government events such as the Republic Day parade, the opening of the flower gardens at Rashtrapati Bhavan, and state visits by the Queen of England or the president of the United States of America.

Of the 3.5 million POTAs, one million will be kept available at all times for private functions, such as polo matches, lawn parties at the Gymkhana Club and weddings at Chhattarpur farmhouses. Wedding season in Delhi will become a dazzling affair, with squadrons of between 5,000 and 10,000 youngsters, resplendent in sherwanis and lehengacholis, marching before the procession-al brass band, the groom's white steed and myriad revellers, sucking clean the air in their path.

Some persons are greatly concerned about the life expectancy of POTAs, which I confess will mercifully not be as long as that of workers employed today in the open dump at the capital's Ghazipur landfill, which by my records is 39 years. The extended lifespan of these persons is due to the inexpedient use of their resources, as a result of which they spend long stretches in unemployment in between phases of productive labour, which invariably stretches the duration of their lives. Regressions run by a private consulting firm of international repute suggest that, all variables considered, POTAs will expire after six years of full service, at the age of ten, at which stage they will be rationally disposed of.

I was recently discussing this scheme with an eminent environmentalist, a true lover of this nation's green spaces, whose values I highly esteem, who offered a refinement upon my scheme. He said that many gentlemen of this city who own farmhouses feel that the charm of patrician country living has been entirely lost because of the foulness of the air. To own a farmhouse without being able to have a shandy in a planter's chair on the verandah while the sun fades away in an auburn haze is as good as not having a farmhouse at all. My gentleman friend suggested that

POTAs displaying better social graces may be employed in such farmhouses, where they may, in between gasps, also recite short poems on nature's bounty in the Queen's English. With due deference to my friend's suggestion, I cannot be altogether in his sentiments; for as scientists at AIIMS who have studied the matter assure me, to maximise the lung capacity of children requires single-minded focus on breathing, leaving little time for side ventures such as learning the rudiments of reading and writing, much less English Romantic poetry. Besides, it is not improbable that some scrupulous people might be apt to censure such a practice (although indeed very unjustly), as a little bordering upon the insensitive; which, I confess, has always been with me the strongest objection against any project, however so well intended.

But I considered the proposal of my friend, who said this inspired idea was put into his head by an account he had read of his great-grandfather, who served as a district magistrate in Midnapore, where he taught his punkah-pullers not only to make gin and tonics but also to recite "The Rime of the Ancient Mariner" and, in the case of one

**Wedding season in Delhi will become a dazzling affair, with squadrons of between 5,000 and 10,000 youngsters, resplendent in sherwanis and lehengacholis, marching before the processional brass band, the groom's white steed and myriad revellers, sucking clean the air in their path.**



particularly clever chap named Hamza, three Latin stanzas from the Aeneid.

Those with a fetish for costly high-tech gimmickry have proposed alternative schemes for purifying the capital's air. The defence ministry has been in close communication with its counterpart in Israel ever since the thawing of bilateral relations under the present government. Inspired by Israel's missile-defence system, an invisible contraption referred to in the media as an Iron Dome, the ministry proposes to construct a literal dome over the entire National Capital Region. This will not

only keep out foreign missiles but also external pollutants—such as those, as per a National Intelligence Agency study, being deliberately launched into our airspace by the aggressive burning of agricultural material in Pakistan. To expel pollutants produced within the capital itself, the ministry proposes to commission an elaborate network of suction fans feeding into a 500-kilometre pipeline to the border crossing at Wagah, where the black air will be thrust upon our enemies.

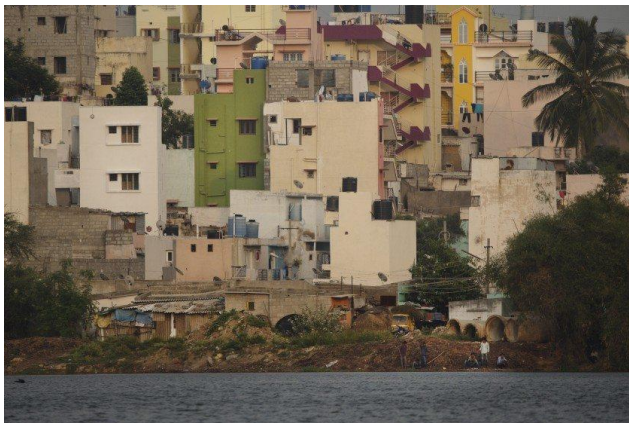
I think the advantages of the proposal I have made over such schemes are obvious, as well as of the highest importance. For one, it is organic and entirely sustainable, the supply of futureless children within our present system being almost limitless. For another, it would reduce the toxicity not only of our air but also our social body. There may be those with vested interests in the status quo who say that it cannot be done. But society can be changed and so can individuals. We can make a difference if we but try. As a gesture of good faith I would offer up my own progeny for service as a POTA, but she will soon be four and past the training age for gasping. ■

Photo Essay:

## 6. Untold Stories of Change, Loss and Hope Along the Margins of Bengaluru's Lakes

Marthe Derkzen, Arnhem/Nijmegen.

Before becoming India's information technology hub, Bengaluru was known for its numerous lakes and green spaces. Rapid urbanization has led to the disappearance of many of these ecosystems. Those that remain face a range of challenges: residential and commercial construction, pollution and waste dumping, privatization, and so on. Today, Bengaluru's lakes are principally seen as garbage dumps and sewage ponds that can have either of two fates: one, be transformed into recreational oases to suit the needs of wealthy residential neighborhoods, or two, be encroached upon until none of the original shapes and functions can be traced. But how does this affect the lives of the people living at the very margins of Bengaluru's beloved yet contested lakes?



Waterfront – Madivala Lake. Photo: Arati Kumar-Rao

As a result of rapid urbanization and environmental change, people's reliance on local natural resources has substantially decreased in Bengaluru. This decrease is due to contamination of the surroundings, restrictions to access and, for some, the constant threat of eviction. Bengaluru is witnessing a

transition from livelihoods dependent on use of these open spaces for activities such as fishing, cattle grazing and domestic purposes, to a cultural use of recreation and visual beauty. People are tending to move away from communal organization—such as taking turns to work on each other's rice fields, maintaining the village grove, or sharing irrigation and lake management duties—and to move towards private organization when tending to one's home garden or carrying out religious rituals. While people at the margins of lakes are often blamed for the degradation of lake ecosystems, they are actually preserving and often increasing native biodiversity and open space—acts that are quite uncommon now in a metropolis such as Bengaluru.

These trends are taking shape in line with a shift in lake accessibility. It is becoming harder to gain access to these ecosystems, either because of regulations (only government tendered fishing is allowed), physical barriers (lake fencing), or distance to adequate natural resources. Societal pressures also influence trends (cooking with firewood is old-fashioned). This means that livelihoods have become less location-bound for the ones that can afford it, while the ones who cannot need to find ways to



cope with a degraded environment that is increasingly inaccessible. As happens elsewhere, urban open spaces, or urban commons, are being taken over by the elite and middle classes. As a young resident put it: “I do not wish for a park to be constructed, because that means that our houses will be demolished.”

The stories of Bengaluru’s residents represent the casualties of rapid urban growth witnessed by the city, but their voices often remain unheard. To bring back these voices into the debate, we organized a photo exhibition titled “Living at the margins of Bengaluru’s lakes: Untold stories of change, loss and hope” on Oct. 31 to Nov. 1 2015 in Rangoli Metro Art Center in Bengaluru, India. A diverse audience of 900 to 1000 visitors came to the art gallery. People were in awe of the photographs and accompanying stories. “This really is an eye opener for people like us who live in the urban area. I was unaware of how lakes in the city were used by the city’s marginalized, and how severely they are impacted by the pollution of these lakes,” said Priya Dileep, an IT professional in the city. A significant feature of the exhibition was the presence of residents from the lakes, individuals who were themselves the subjects of the photographs displayed. They were astonished to see their portrait on the gallery wall, and proud.

The photographers who worked on the project are **Anoop Bhaskar** and **Arati Kumar-Rao**. Anoop, born in Bengaluru, worked in a corporate environment before he decided to become a fulltime photographer. Anoop has been involved from the moment the fieldwork started. He visited all the case study lakes and assisted with the household interviews that were held in Kannada, Tamil or Hindi. During the four months the fieldwork lasted, Anoop took photographs of the people we spoke to and places we visited, because we hoped to organize an exhibition at its end. A link to Anoop’s work is [here](#). Arati Kumar-Rao is an independent environmental photographer & journalist documenting effects of landuse change on lives, livelihoods, species, and landscapes. Her most recent work is [here](#).

We will show the photo exhibition in a few other locations across Bengaluru in the early months of 2016, starting in January at the INSEE conference and the Kaikondrahalli lake festival.

\* \* \* \* \*

## LIVELIHOODS

**Saraswathamma—Bhattarahalli Lake** Photo: Arati Kumar-Rao

Saraswathamma is “over 30 years old” and was born at Bhattarahalli Lake. Back in the day, she and her neighbors enjoyed eating fish from the lake, but today the lake is so polluted she does not dare to touch its fish. She receives Rs.24 for each litre of

milk her three cows produce. Her cooking takes place on a kerosene stove, until she runs out of fuel that she receives in her supply of monthly ration, which usually happens after 15 days. She copes by collecting firewood from cut road side trees, or by foraging from her surroundings. Soon she will need to rethink her livelihood strategies, as a demolition order demands her to leave her home ground for rehabilitation elsewhere.



Photo: Arati Kumar-Rao

### **Rajamma—Madivala Lake**

Rajamma has been living at Madivala Lake for over 20 years. Herding cattle runs in his family, and a year and a half ago, they decided to get four cows and four calves, which provide them with an income from the sale of milk and curd.

Their house is located right at an open drain with an immensely pungent stench. The land bridge that used to connect the settlement to the lake bund has been destroyed after a murder incident.

Today, Rajamma crosses the drain via a makeshift bamboo bridge to take her cattle out for grazing. Restricted access to the lake also complicates the collection of wild soppu (leafy greens) to cook green curry, which the

family used to do two to three times a week in the rainy season. Buying soppu costs Rs.15.

### **Living on the edge—Madivala Lake**



Photo: Anoop Bhaskar

A large open drain, several meters wide, flows parallel to the eastern shore of Madivala Lake. From afar, the drain appears to be a nice little creek, but that illusion is ripped apart as soon as one moves closer: the stench is unbearable. Dozens of people live right above this open sewer and, on top of the obvious health risks, have to deal with the daily fear that their children may slip and drown in the muck.

## LAUNDRY

### Dhobi Ghat—Madivala Lake

Photo: Arati Kumar-Rao

For decades, Madivala has a working Dhobi Ghat. Dhobis (launderers) washed their loads in a canal next to the lake until about 20 years ago, when the water became too polluted and they resorted to bore well water. The canal turned into a bubbling and reeking sewage drain, which is an eyesore for the entire Dhobi Ghat. Concurrently, the disappearance of open lands and grazing fields has led their donkeys to the garbage dump in search of food. After so many years, their deteriorating environment has made the dhobis lose sight of a bright future.



### Patchwork—Madivala Lake

Photo: Anoop Bhaskar

The Dhobi Ghat cannot accommodate everyone, so some launderers enter the lake to wash their clothes. After washing, the laundry is left to dry on the lake bund that turns into an elaborate patchwork of jeans, shirts and towels. People, bikes and cycles move in between the little islands of clothing as if it is the most natural thing in the world.



With no other place to go, this daily sight will probably continue to exist. Yet, they are always in danger of being moved due to increased accessibility restrictions.

### Stepping stones—Madivala Lake



Photo: Arati Kumar-Rao  
A man carries his load over the outflow of Madivala Lake. The stone slabs he uses to cross the water serve another purpose in the morning, when a group of launderers gathers here. In the evening, these shallow waters are used by children to bathe, play and catch small fish.

## FISHING

## Watchman—Madivala Lake



sign of fish abundance in Madivala Lake.

Photo: Marthe Derkzen.

The watchman of the fishermen's hut at Madivala Lake makes broomsticks from the veins of coconut leaves he collects nearby. He lost his leg after a bus accident. Every day, contract fishermen head out in their coracle boats to fish in the lake and sell their catch in Madivala Park. If the early morning yield is not sufficient, they head back out until lunch. This year's pelican presence is a



Photo: Anoop Bhaskar

## Narayanaswamy—Madivala Lake

When he was younger, Narayanaswamy and his father would fish in Madivala Lake.

Now that all fishing has become contracted, Narayanaswamy can only fish outside of official lake borders, which has led to a tradition of fishing in the canal northeast of the lake.

This fishing technique can be observed only a few times a year, when the canal at the lake outflow fills with water.



## Fishermen—Madivala Lake

Photo by: Anoop Bhaskar

The only remaining non-contracted fishing at Madivala Lake is a collaborative effort by a group of men who build a structure of nets, mud and dams made of coconut trunks to create ponds that ensure that the fish cannot escape and grow big. After some weeks or months, men organize themselves and start emptying the ponds with buckets, removing weeds, locating the fish hiding in the mud and catching them by hand—sometimes slinging a water snake over their shoulders. The catch is divided among them, while the exciting event entertains dozens of neighbors and passersby.

## MIGRANT COMMUNITIES

### Raichur Colony—Vibhutipura Lake



Photo: Anoop Bhaskar

These children live in a settlement of blue tarpaulin shacks northeast of Vibhutipura Lake. Together with their families, they migrated from rural Karnataka to Bengaluru city, fleeing the drought. Here, their fathers work as construction laborers in apartments, while their mothers work as domestic help. Their houses do not have electricity or toilets. On days when they have no water supply, they wash their

clothes and vessels in the lake outflow, which is not fenced off like the rest of the lake. They cook on firewood but cannot grow their own vegetables because the land they live on is not their land. And they do not know where they will be living at the start of next school year.

### Tarpaulin shacks at Rachenahalli Lake



Photo: Marthe Derkzen

### Jalalbe—Puttenahalli Lake

Photo: Arati Kumar-Rao

Jalalbe, age 14, was born near Puttenahalli Lake after her parents moved from Gulbarga to Bengaluru. The family of six lives in a single room that lacks basic amenities; she lights a lamp every evening and

cooks rice on a wood fueled stove in front of the house. Water is fetched from construction sites. Twice a year, they replace the coconut leaves on their roof to prevent it from leaking. Coconut leaves are more water resistant than tarpaulin. On the way back from school, Jalalbe walks along the lake and enjoys the view, birds and fish. She is, however, afraid of the police and security that guard the road, carrying long sticks. At night, she never goes anywhere near the lake. In her ideal world, there would be more nature to compensate for the noise, buildings and roads that surround her at present.



## FROM WILD FOOD AND FRUIT GROVES TO RECREATION AND GARDENS

**Vibhutipura Lake** Photo: Anoop Bhaskar

Vibhutipura Lake used to be larger, and would flood after heavy rains. Long-time residents remember how brick factory laborers would drink lake water during their lunch breaks, and how they themselves crossed finger millet fields on their way to school. But the most rewarding trips were eastbound to the guava groves behind the paddy fields at the lake's outflow. Today, the lake's floodplains are encroached on by settlements, and cows are the only ones to enrich their diets at the lake. After the lake was fenced and cleaned up, it has also seen a new set of visitors: joggers and walkers from surrounding apartments and offices.



Photo: Anoop Bhaskar

### **Margaret Mary—Vibhutipura Lake**

Margaret Mary, age 59, was born near Vibhutipura Lake and still sells spices in the neighbourhood.

In her memory, the area was like a village, where nobody would be out on the streets after 6 p.m. Long gone are the times that she used the lake for domestic purposes.

Nowadays, the aesthetic and recreational benefits are the most important features of the lake for her.

Nevertheless, she feels spiritually connected to the lake, and relates the lake to her everyday happiness.



Photo: Arati Kumar-Rao

### **Pushpamma—Puttenahalli Lake**

Pushpamma lives with her children at Puttenahalli Lake, where she buried her husband at its eastern side.

For her work as a street sweeper, she collects long grass and reeds to make broomsticks. She did not collect the huge pile of firewood next to her house: she says it is hard to find firewood now that the groves around the lake have disappeared, and she has aged.

Her ability to collect healthy wild soppu (leafy greens) has diminished since the lake became fenced. Instead, she has planted a home garden with banana trees, sweet potato, tulasi, pumpkin, chili and more.

## THE FUTURE

### Urban representations—Bhattarahalli Lake

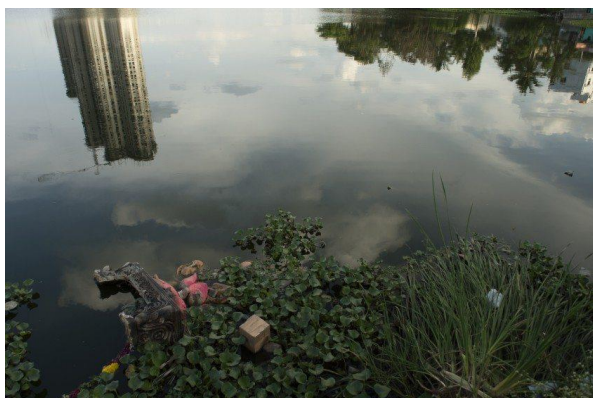


Photo: Arati Kumar-Rao

Bengaluru's lakes are small-scale representations of the city and its main challenges: a mix of the urban poor, middle-class, and elite, of urban expansion, encroachment, privatization, pollution, ecological degradation, traditional and modern uses, land disputes, and so on. This reflection on Bhattarahalli Lake's surface shows the rise of a 38-storey lake view apartment

next to a soon-to-disappear slum settlement with its coconut, fruit and drumstick trees. In the foreground are the remainders of an immersed Ganesha idol amidst the nutrient-hungry water weeds that are choking so many of this city's lakes.

### Ashwathamma—Puttenahalli Lake Photo: Arati Kumar-Rao



Ashwathamma is a very active citizen of the low income community living adjacent to Puttenahalli Lake. Her knowledge of ecological and geographical changes in the landscape around the lake is formidable. She has been a key member in organizing the community to fight for stay orders against eviction. She poses the question: why are there different laws for the ministers living in wealthy neighborhoods than

for us?



### Three girls—Bhattarahalli Lake Photo: Arati Kumar-Rao

These three girls spend evenings playing with their friends in the lanes of Bhattarahalli Lake's settlement. They grow up living at its waterfront. What are the chances that they will continue to see their lake once it is cleaned up and turned into a neat looking park?

\* \* \* \* \*

*The underlying research for this project was carried out between May and October 2015 by Marthe Derkzen from VU University Amsterdam in collaboration with Harini Nagendra and Seema Mundoli from the Sustainability initiative at Azim Premji University, Bengaluru. The project received financial support from an USAID PEER grant to ATREE (Ashoka trust for Research in Ecology and the Environment).*

**Marthe Derkzen**  
Amsterdam

## Reading Comprehension

### The Jungle Prince of Delhi

NEW DELHI — On a spring afternoon in 2016, when I was working in India, I received a telephone message from a recluse who lived in a forest in the middle of Delhi.

The message was passed on by our office manager through Gchat, and it thrilled me so much that I preserved it.

Office manager: Ellen have you been trying to get in touch with the royal family of Oudh?

Ellen: this has to be the best telephone message ever

Office manager: It was quite strange! The secretary left precise instructions for when you should call her — tomorrow between 11 am and 12 noon

Ellen: oh my god

I knew about the royal family of Oudh, of course. They were one of the city's great mysteries. Their story was passed between tea sellers and rickshaw drivers and shopkeepers in Old Delhi: In a forest, they said, in a palace cut off from the city that surrounds it, lived a prince, a princess and a queen, said to be the last of a storied Shiite Muslim royal line.

There were different versions, depending on whom you spoke to. Some people said the Oudh family had been there since the British had annexed their kingdom, in 1856, and that the forest had grown up around the palace, engulfing it. Some said they were a family of jinns, the supernatural beings of Arabian folklore.

An acquaintance who had once glimpsed the princess through a telephoto lens said her hair had not been cut or washed for so many years that it fell to the ground in matted branches.

One thing was sure: They didn't want company. They lived in a 14th-century hunting lodge, which they surrounded with loops of razor wire and ferocious dogs. The perimeter was marked with menacing signs. INTRUDERS SHALL BE GUNDOWN, said one.

Every few years, the family agreed to admit a journalist, always a foreigner, to tell of their grievances against the state. The journalists emerged with deliciously macabre stories, which I had studied admiringly. In 1997, the prince and the princess told *The Times* of London that their mother, in a final gesture of protest against the treachery of Britain and India, had killed herself by drinking a poison mixed with crushed diamonds and pearls.

I could see why these stories resonated so. The country was imprinted with trauma, by the epic deceit of the British conquest and then the blood bath of the British departure, known as Partition, which carved out Pakistan from India and set off convulsions of Hindu-Muslim violence.

This family, displaying its own ruin, was a physical representation of all that India had suffered.

A few grainy photographs of the siblings had been published: They were beautiful, pale and high-cheekboned, but also somehow ravaged, harrowed.

Nearly every day, dropping my children at school, I drove past the narrow road that led into the middle of the forest, which was surrounded by an ornate wrought-iron fence. The woods were so thick that it was impossible to see much, and inhabited by gangs of monkeys. At night, you could hear jackals howling.

The day after I got the message, I dialed the phone number. After a few rings, someone picked up, and I heard a high-pitched, quavering voice on the other end.

## **The Woods**

On the following Monday, I asked our driver to take me into the woods at 5:30 in the afternoon, as instructed.

The woods themselves were a bit magical, a thicket in the middle of a city of 20 million. British colonial officers had introduced mesquite trees in the 19th century, and they spread rapidly, swallowing pastures and roads and villages — everything that had been there before. Biologists would later describe it as a “massive invasion” by an “alien species.”

We drove farther, until the tree canopy was tormented, thick enough to block out the light.

Reader, I should confess that I wanted to write the story.

That week, the contents of my inbox were not inspiring: There had been a fire at an ammunition depot. There were budget reports, an unending cycle of state and local elections, the introduction of a goods and services tax.

These events, which filled so many of my days at that time, did not entirely satisfy my literary urge. The House of Oudh, now that was a story!

The person on the phone had told me to leave the car at the end of the road, beside the high wall of an Indian military compound, and to come alone. This did not surprise me: The Oudh family refused, famously, to meet with Indians. I asked the driver to wait at a distance and stood in the woods, somewhat awkwardly, holding my notebook and wondering what came next.

Then the bushes rustled, and a man appeared.

He was elfin and wore high-waisted mom jeans. He had high cheekbones with hollows beneath them and wild gray hair that stood up in tufts.

“I am Cyrus,” the prince said. It was the high-pitched voice I had heard on the phone. He spoke in bursts, like a person who spent most of his time alone.

Then he turned and led me into the woods. I tried to keep up, stepping over a tangle of roots and thorns, and climbed a flight of massive stone stairs leading to the old hunting lodge. It was half-ruined, open to the air, and surrounded by metal gratings; one steel bar was loose, and the prince moved it aside with a great clank so that we could enter.

I stepped into spare, medieval grandeur, a bare stone antechamber lined with palm trees in brass pots and faded, once-elegant carpets. On the wall hung an oil painting of the prince’s mother swathed in voluminous, dark robes, her eyes closed as if in a trance.

The prince led me up to the roof to show me the view. We stopped at the edge of the building, gazing across green treetops to the dusty city, shimmering in the heat.

Other great cities may be built on top of ruins, but Delhi is built of them. It is almost impossible to go from one point to another without stumbling over a 700-year-old tomb or a 500-year-old fort.

Seven successive Muslim dynasties built their capitals here, each swept aside when its time had passed. The ruins are a reminder that the present dispensation — democracy, Starbucks, Hindu nationalism — is only the blink of an eye in India. We were here, they seem to breathe. This was ours.

My idea was to interview the prince and write the story. When I asked about his family, he launched into an animated speech about the perfidy of the British and Indian governments. I recognized quotes from articles I had read, written by colleagues from The Washington Post, The New York Times, The Chicago Tribune, The Los Angeles Times. He ranted a little, complaining of persecution by a criminal gang. He was flinging his hands wide, declaiming and then dropping to a dramatic whisper, as he spoke of the decline of the house of Oudh.

“I am shrinking,” he said. “We are shrinking. The princess is shrinking. We are shrinking.” When I asked if I could publish our interview, he balked. For this, he said, I would need the permission of his sister, Princess Sakina, who was not in Delhi. I would have to come back. It struck me as strange, though.

Why summon a journalist if you don’t want to be written about?

## **How It Began**

The story began with his mother. She appeared, on the platform of New Delhi’s train station in the early 1970s, seemingly from nowhere, announcing herself as Wilayat, Begum of Oudh.

Oudh (pronounced Uh-vud) was a kingdom that no longer existed. The British annexed it in 1856, a trauma from which its capital, Lucknow, never recovered. The core of the city is still made of Oudh’s vaulted shrines and palaces.

The begum declared that she would stay in the station until these properties had been restored to her. She settled in the V.I.P. waiting room, and unloaded a whole household there: carpets, potted palms, a silver tea set, Nepali servants in livery, glossy Great Danes. She also had two grown children, Prince Ali Raza and Princess Sakina, a son and a daughter who appeared to be in their 20s. They addressed her as “Your Highness.”

The begum was an arresting-looking woman, tall and broad-shouldered, with a face as craggy and immobile as an Easter Island statue. She wore a sari of dark, heavy silk and kept a pistol in its folds. She and her children settled on red plastic chairs, and waited. For years.

“Sitting, sitting like yogis,” recalled Father John, a Catholic charity worker who distributed food in the train station. The children were strangely submissive, he said, reluctant even to accept a banana without their mother’s permission.

“They were more obedient than the dogs,” he said. “They were absolutely under her control.”

The begum’s behavior was imperious and dramatic. She refused direct conversation, demanding that queries be written on embossed stationery, placed on a silver platter and carried

to her by a servant, who read them aloud. If the station master gave her any trouble, she threatened to kill herself by drinking snake venom.

“The Nepali servants, they would walk on their knees,” said Saleem Kidwai, a historian who sought them out at the time.

Government officials scrambled to find her somewhere to live. She was attracting attention from the media, and officials feared the Shiite population in Lucknow could explode into civil unrest if they believed she was being abused.

“It was such a romantic image,” Mr. Kidwai said. “She is out of the castle, now living in the railway station.”

Ammar Rizvi, an aide to the chief minister of Uttar Pradesh, was sent to New Delhi as a liaison. He recalled handing Wilayat an envelope with 10,000 rupees so that they could set up a household in Lucknow.

“In 1975, that was a big sum,” he recalled. “But she got angry and threw the envelope. The notes were flying everywhere, and my public relations officer had to catch this note here, that note there. She said no, she would not go, the amount was very little.”

In the months that followed, Mr. Rizvi tried to persuade the begum to accept a four-bedroom house in Lucknow, but she refused, saying it was too small.

He was getting anxious. Muslims were mobilizing; once, Mr. Rizvi visited during Muharram, an annual ritual of mourning, and found her surrounded by pilgrims, flagellating themselves with chains to which razor blades had been attached.

“Poor passengers, they were looking at the whole scene,” he said. “There was blood all over the place.”

Around this time, Wilayat identified a far more effective way to make her case: foreign correspondents.

“India Princess Reigns in Rail Station,” a Times correspondent wrote in 1981, describing her “genuine commitment to redeem the ancestors, to right wrongs suffered over centuries and to obtain justice.” People magazine recorded her declaring, “Let the world know how the descendant of the last nawab of Oudh is treated.”

Foreign correspondents arrived, one after another, and readers began to send letters from all corners of the world, expressing outrage on her behalf. The begum imposed stringent conditions — she “could only be photographed when the moon was waning,” United Press International reported — and journalists complied, delighted with the Gothic peculiarity of it all.

In 1984, her efforts paid off. Prime Minister Indira Gandhi accepted their claim, granting them use of a 14th century hunting lodge known as Malcha Mahal. They left the train station roughly a decade after they first appeared there. Wilayat never appeared in public again.

## **Stranded on a Lifeboat**

My responsibilities in New Delhi included a great many diplomatic receptions and buffet dinners, which I found exhausting. It was like being drawn into an imperial court, in which every personal relationship was a series of transactions — exchanges, usually, of bits of status for bits of information. I did not have the clothes for this kind of work, or the personality.

So I found it a relief to drive into the forest and sit on Cyrus's porch, eating pistachios and watching motes of pollen circulate in the sunlight.

In a meandering, roundabout way, I was trying to excavate his past. I felt flattered that he allowed me in, again and again, when so many others had been turned away. And yet something also nagged at me about the little family unit, the way they seemed to have scoured away any relationships from before their appearance at the train station.

When our conversations had gone on for about nine months, I traveled to Lucknow, a large city in northern India that was the cradle of the Oudh dynasty. I was there to interview detectives for an unrelated story, but I knew that Cyrus had lived there with his mother and sister in the 1970s, so I went to the neighborhood where I had heard that Oudh descendants lived.

There, to my surprise, the old-timers remembered Cyrus and his family. But they told me, almost as an aside, that they had been dismissed as impostors. The Oudh descendants in Kolkata, where the nawab died in exile, had also rejected their claim. And there were questions Cyrus himself seemed unable to answer. Where was he born? Who was his father? How do you crush diamonds, anyway?

His sister, Princess Sakina, had not turned up but he gave me a book that she had written, documenting their lives. The book was almost unreadable, haphazardly capitalized, lacking punctuation and written in florid, apocalyptic prose.

But sprinkled in the rambling text were flashes of genuine tenderness between the siblings, as if they were two small children, stranded together on a lifeboat.

Sakina wrote that she had intended to follow her mother into suicide, but for her brother. The question of his future nagged at her. "ABOUT PRINCE CYRUS RIZA MY BROTHER WHAT STEP SHALL HE FOLLOW?" it says. "MY SILENT SINCEREST SILENCE HAS A WISH THAT PRINCE SHOULD BE BLESSED WITH HAPPINESS."

One night Cyrus called me, howling unintelligibly, to tell me that his sister had in fact died seven months earlier. He had told no one, burying her body himself. He had lied to me about it for months, and seemed a bit ashamed by it. I curled up on my daughter's bunk bed and listened to his voice over the phone. He said that I should never visit again, and also that he was so lonely.

I waited a few days, and then showed up with a Filet O' Fish from McDonald's. Our relationship seemed to knit itself back together. He asked me to procure him a gun and a girlfriend, which I did not; and a tarpaulin and a recording of "Fiddler on the Roof," which I did. He was solicitous and a little corny, with pop culture references that seemed to date from the 1960s.

Once, he asked me to kiss him on the cheek — his skin felt fragile, like tissue paper — and he told me that it was the first time he had been kissed in 10 years. “When you are over here, my heart goes doopity doo, Sophia Loren,” he said.

He even said I could write something about him, as long as I didn’t go into much detail.

“I have to tell the truth,” I told him.

“O.K., you have to tell the truth,” he said. “Then again, there is a hole in the bucket, Harry Belafonte.”

We had been debating this for 15 months, and I was due to leave India soon and take up a new assignment in London. This sort of exchange made up the balance of our final conversations: I was trying to get him to reveal something about his origins — anything, really — and he was twisting away from me.

“You are just a very mysterious person, because I don’t know who you are,” I said once. His response was coy.

“Oh really,” he said, in a singsong voice. “Well, anyway. Oh, really? If you have said me mysterious, I am just sitting before you.”

In our last conversation, a few hours before I boarded a flight for London, he asked me how someone could get word to me, should he die. I asked if he planned to commit suicide.

“So far, I am going to preserve myself,” he said.

“Good. Well, then, I’ll see you again,” I said.

I think I hugged him goodbye. The last I saw of him, he was replacing the clanking iron bars that protected him from intruders.

## **Death of a Rajah**

Three months later, I was in an airport, on my way home from interviewing the Swedish foreign minister, when I learned Cyrus had died. I got the news on Facebook messenger, from a friend at the BBC.

I put down my bag and sat on the airport floor, feeling a little in shock.

This feeling was partly selfish. I had a thick file of interviews in a manila envelope labeled “Prince Cyrus.”

I had figured that, in this family’s story, there was a parable about India, something about trauma that went unresolved as one empire replaced another.

And then there was a second feeling. I was sad that I was not there to help him. I had enjoyed our conversations, the maddening dance of 18 months. I could not believe that he had died alone in that forsaken place.

I was sure that in the dark, he had wanted someone to hold his hand.

Thinking about this made it difficult to breathe. I stayed there for a moment, in the corridor at the airport, while people hurried past, rolling suitcases behind them.

It was the guards at the military facility next door — they called him “rajah,” or king — who later recounted how he had died.

Three weeks after we said goodbye, he was seen trying to wheel his bicycle down the road, shaking violently. An electrician from the military facility helped him to his feet, and he staggered back to the hunting lodge. He asked for a bottle of lemonade and an ice cream.

Rajinder Kumar, one of the guards, said it seemed to be dengue fever.

I've had dengue. It's like being wiped off the face of the earth. For me, it began with a penetrating ache in my shoulder, and then, as I sweated through the hotel sheets, hallucinations. My senses were altered. When I drank water from the tap, it tasted like a mouthful of tin.

I don't know what Cyrus hallucinated. His illness may have progressed into hemorrhagic fever, with bleeding from the gums and nose, and under the skin. Patients dying of hemorrhagic fever sometimes have such low blood pressure that no pulse can be detected. Rajinder said Cyrus had refused to be taken to the hospital.

"Madam, I really tried very hard," he said. "I said we would call the police, we would take you to the hospital, but no, no, no. We are outsiders, third-party people, we can't apply that kind of pressure. Had we been family we could have just taken his hand and taken him."

Rajinder thought it came down to pride.

"He used to have the attitude that he was the king," he said. "That is why he did not want to go to the hospital, that he did not want to be a normal person."

His illness lasted eight days. A boy, sent up to check on his welfare, saw him stalking the property half-clothed, naked from the waist down, or shivering under a mosquito net. Then, after a day or so, no one saw him, and the boy found him dead, curled on the rock floor.

## **The White Whale**

I climbed the stone stairs to Malcha Mahal several months later with a kind of curiosity that was in some ways like greed.

I had returned to India for a few days, to see what I could find among his possessions.

It is legitimate to ask why I was doing all this. I asked it myself.

"Is Cyrus a white whale?" was the subject line of an email I sent my editor.

I had become curious — O.K., obsessively curious — about how a family with wealth and status had become lost in the forest. About who they were.

Stories like that had always flipped a switch in me, spilling outside the boundaries of the assignment. Something similar had happened to me once, years before, when I pieced together the life story of a woman who had stabbed her children in a basement.

When I felt I was making progress it was a calming feeling, as though a cloud of buzzing, disparate information were being forced through a funnel, into a clear stream. Small

breakthroughs would drive me forward, like a gambler. On such assignments it was possible to forget unpaid bills, unanswered telephone calls, to set aside anything not required to follow the trail.

Cyrus and his family had lived through a great historical rupture: the country's division. My sense was that the answer lay there, in an act of government that disrupted the lives of half a continent. But what made me think I could track them down after all these years? Say I did — what could be more interesting than the story they told about themselves?

This is what was going through my head as I climbed those stairs. Cyrus's death had received lots of media coverage, inside India and abroad, and thrill seekers had tramped through Malcha Mahal, taking video with their phones, hoping to see a ghost. The floor of the entry hall was a havoc of discarded papers that had been dumped from the wardrobe and chest of drawers.

I leafed through the letters, looking for a birth certificate, a passport, something that anchored this family in the factual world.

What I found instead was a chronicle of 30 years of interactions with journalists. This, it seemed, was the family business. There were dozens of requests from reporters. I have written enough letters of this kind in my life to recognize their pleading tone. Some were written in elaborate, courtly language. Others offered money.

Sitting there on the carpet, I laughed out loud. Cyrus and his family would string them along — as he had strung me along — and then, when the mood struck them, disdainfully refuse the interview. The Oudhs were the ones with the story. They had the upper hand.

Among the family papers was a column from *The Statesman*, published in 1993, with the headline "When History Is Based on Errors." Two paragraphs had been marked.

"Have you noticed that a factual error appearing in respected printed form tends to be copied by other researchers in the same field, until, inevitably, it competes with the truth for credibility?" it read. "The writers who perpetuate these mistakes rarely do so from evil motive: They have no axe to grind, they simply do not have time to check and double-check each fact, so they rely on the scholarship of their predecessors."

Two things genuinely surprised me.

The first was a stack of receipts for regular, small transfers of cash through Western Union from a city in the industrial north of England. The sender identified himself as a "half brother."

The other thing was a letter. It was handwritten on fragile, blue airmail stationery and sent in 2006. It was cranky yet intimate, conveying both annoyance and concern, a letter that could only have been written by a relative.

"I am in so much pain that I cannot go to the toilet even," the writer began, and, after an extensive catalog of physical ailments, went on to complain about the burden of providing continuous financial support for Wilayat and her children. He was obviously not a rich man.

"For God's sake, try to sort yourselves out financially, in case anything goes wrong with me," the writer told them, appending information for the latest Western Union transfer. "May God help us all."

The letter was signed "Shahid," and it was sent from an address in Bradford, Yorkshire.

## **The Last Nawab**

Let us pause, for a moment, to consider the tragedy of the house of Oudh.

In the mid-19th century, the British East India Company had accelerated its consumption of Indian kingdoms. Having guzzled Punjab and Sindh, it set its ambitions on Oudh, a territory roughly the size of South Carolina.

Oudh was ruled at the time by a nawab, or provincial governor, named Wajid Ali Shah, a dreamy aesthete who spent his time orchestrating lavish entertainments in a harem that he called the Parikhana, or “abode of fairies.” He thought the British were his allies, because his great-uncle had extended them vast loans.

The British thought otherwise. They stripped the nawab of his kingdom on the grounds of mismanagement, thrusting into his hands a treaty declaring that “the territories of Oude shall be henceforth vested for ever, in the Honorable East India Company.”

The nawab wept, solemnly removed his turban and placed it in the envoy’s hands.

Soon thereafter, he set off for exile in Calcutta, and Lucknow was cast into mourning, the historian Rosie Llewellyn-Jones recalls in her biography of Wajid Ali Shah. “The body of the town was left soulless,” Zahuruddin Bilgrami wrote at that time. “Grief rained down from every door and wall. There was no lane, bazaar, or dwelling which did not wail in our full agony of separation.”

The nawab’s mother, in seclusion, sailed to Britain in a desperate attempt to plead her case with Queen Victoria, something the wags at Punch magazine found hilarious:

The Queen of Oude

Is disendowed

Of regions rich and juicy

Their milk and honey

I mean their money

Squeezed out by Lord Dalhousie

Oudh was finished. The vanished kingdom would hang over Lucknow like a pall.

## **Haunted City**

I returned to Lucknow, and took a cab to a warren of residential streets tucked behind the grand shrines and palaces of the old city.

This is where I had encountered witnesses who could remember Cyrus and his family. Horses pulled carts through the narrow lanes, and I could hear tinny music playing on a radio. Nostalgia for Oudh was a cottage industry here. Everywhere I went, I saw the image of the last nawab, Wajid Ali Shah, his expression dreamy, one nipple poking out of his shirt.

Then there were the descendants. Because Wajid Ali Shah had hundreds of wives and concubines, people identifying themselves as descendants are all over the place in Lucknow, fighting like polecats over the veracity of one another’s claims.

When I asked about the family, I encountered instant recognition: Yes, three of them had moved into this complex for a few months in the 1970s.

Abrar Hussain, who had worked for Wilayat as a servant, said the family had caused a sensation, especially among Shiites. Ordinary people were moved to tears at the sight of them, and some were so awed by the begum — so convinced that she was their returning queen — that they refused to turn their backs to her, walking backward, out of respect.

“It wasn’t just me — the whole public was coming to see her, and was going crazy,” he said. “People would cry to see her in this condition.”

But the older men who presided over the neighborhood, mostly descendants of members of the nawab’s court, said the family were impostors. Sayyed Suleiman Naqvi, a former code-breaker for the Indian Army, said he had posed as a journalist in order to check Wilayat’s credentials. “She said, ‘We have got documentary evidence.’ I said, ‘Get it.’ She said, ‘I will give it only to those persons who are in authority.’ She showed us certain pieces of crockery and all that, which were of course antiques,” recalled Mr. Naqvi, now in his late 70s. “But she did not show us any documents.”

The family left Lucknow abruptly, he said. Something had happened: An elderly aunt said she recognized Wilayat from before Partition. The aunt said Wilayat was an ordinary woman then, the young wife of a civil servant.

Mr. Naqvi, who considers himself a keen student of human nature, said he believed they were frauds, but that they were not motivated by greed.

“To my mind, this lady was a megalomaniac,” he said finally. “She should have been psychologically tested.”

His assessment of her children, however, was quite different. “They believed their mother,” he said, “because she was their mother.”

## **Gnomes**

Everything I had learned in India was fragmentary, neighborhood gossip unbottled after 40 years.

I returned to London with three real leads. The airmail letter from Yorkshire. That name, Shahid. The Western Union receipts, testament that someone had been caring for Cyrus and his family in secret all these years.

I took a train to Bradford, and walked to the address on the envelope. It was a gray, windblown day, and the walk took me past pawnshops, cheap Chinese takeout joints and dinky rowhouses of yellow brick, nearly all of them occupied by immigrants from India and Pakistan.

I arrived, finally, at a small, neat brick house that was surrounded by a large collection of ceramic garden gnomes, teddy bears, Yorkies, mermaids and fairies.

I was so nervous that I paced in front of the house for a while before ringing the bell.

The door swung open, and before me stood a man in tiger-print pajamas. He was barrel-chested and broad-shouldered, and looked to be in his mid-80s. He did not look well: His eyes were rheumy, his chest sunken.

But he had Cyrus’s face, the same jutting cheekbones and hawk nose.

He led me inside, showed me to a chair and then lay down on a cot. His movements were laborious. He glanced without expression at the photographs I had brought with me. When I

offered to play him a recording of Cyrus's voice, he shook his head in refusal, saying it would be too painful.

Beside his sickbed were two framed pictures of Wilayat.

This was Shahid. He was Cyrus's older brother.

And now, finally, there were some facts.

They were, or had been, an ordinary family.

Their father had been the registrar of Lucknow University, Inayatullah Butt.

My friend's name was not Prince Cyrus, or Prince Ali Raza, or Prince anything.

He was plain old Mickey Butt.

Here, in this brick house in West Yorkshire, I had found it: The identity that Cyrus and his family had worked so hard to keep secret. Shahid, who spent his adult life working in an iron foundry, could remember a life before Oudh, when they had housemaids and school uniforms. When their mother was not a rebel queen, but a housewife.

Before long, Shahid's wife, Camellia, came home. She was a friendly, plain-spoken Lancashire woman, animated on the subject of the Labour Party leader, Jeremy Corbyn, (whom she despised) and her husband (whom she adored). The two of them met in 1968, when she wore her hair in a blond beehive and Shahid was built like a heavyweight boxer; in those days, she said, dreamily, he could fight four men at once.

She never met her husband's mother, but had corresponded with her for years. She thought the story about Oudh was, as she put it, "a bloody big act."

"What was wrong with this woman?" she said of Wilayat. "I believed every word of it at the beginning, but now I doubt all of it. It's very hard to get Shahid to talk about it. I think it's painful. I think he was led to believe it was true. Then, as he got older, he realized it was all built on sand."

Shahid ran away when he was about 14, then emigrated to Britain and rarely mentioned his mother's claim to the royal house of Oudh. When I asked him about that story, he was evasive. He said he wasn't even sure whether he was Indian or Pakistani.

"I'm so confused, I don't know who I am," he said. "I am like a bird, a long lost bird, a lost lamb."

I kept asking questions but Shahid was preoccupied by the news of Cyrus's death — he called him Mickey — and that no one knew exactly where he was buried.

"I should have saved him," he said.

### **'It was a lie'**

Now, all of a sudden, the field of witnesses had expanded. There were other relatives, respectable people, scattered across Pakistan, Britain and the United States.

Cyrus's oldest brother, Salahuddin Zahid Butt, was a pilot in the Pakistani Air Force, a war hero who bombed Indian positions in the 1965 war. He died in 2017, but his wife, Salma, lived in Texas. I called her.

She said her mother-in-law's claim to royal descent was false.

“She thought she was the princess of Oudh, but this was never, ever,” she said of Wilayat. “We never heard this history about the princess of this, the princess of that. She obviously had some mental disorder.”

Two of Cyrus’s older cousins, Wahida and Khalida, were still in Lahore, so I flew to Pakistan to see them. I parked beside an open sewer full of black, seething water, and walked down a trash-choked alleyway and knocked on a wooden door. It opened into a spacious compound, eerily quiet and green, with rosebushes in bloom.

The cousins were hunched, birdlike women in their 70s.

Wahida had worked for many years as a teacher, and barely spoke. She seemed to communicate by slapping people, hard, across the face. She wandered from one of us to the other, looking for someone to slap. Once, it was me. Mostly it was my interpreter, whose face hardened into a permanent wince. Khalida did most of the talking.

She remembered Wilayat as a tempestuous young woman, but said they hadn’t seen her since the late 1960s, when she suddenly left Pakistan and returned to India. They seemed unwilling to say anything further. After listening to them discuss other subjects for an hour, I pressed the issue, conscious of the passage of time.

“Ask her, did you ever hear that your family was related to the royal nawabs of Oudh?” I relayed to my interpreter.

“I have no idea,” Khalida answered.

“Wilayat said she was the queen of Oudh,” I told them. “She told the Indian government that for many, many years.”

“She was lying,” Khalida said.

I prodded them for hours, until I was tired and frustrated.

“Wilayat is dead,” I said. “Her children are dead. There is no secret anymore.”

“Everything is a lie,” Khalida said. “They are dead. Just leave them. God forgives them, so we should also forgive them.”

### **A Family Destroyed**

Trying to get Shahid to speak about his mother and siblings was painful.

He would get stuck at a particular moment in the story, when his mother sent him out to buy bananas and he fled the family. Camellia said that, to this day, he would not eat bananas. She thought it was guilt.

Besides, he was becoming sicker and sicker. It wasn’t a chest infection, but lung cancer that had metastasized to his lymph nodes. Camellia would not think of allowing him to be admitted to the hospital, but nursed him in the front room until there was nothing to do but give him painkillers.

On my fourth visit to Bradford, the last time I saw him, his voice was raspy, but he told me more than he ever had before.

The story, as he told it, began at Partition.

On June 3, 1947, the British viceroy, Lord Mountbatten, announced that the withdrawal of British Empire would create two independent nations, with Pakistan carved out for Muslims. Lucknow’s educated Muslims began slipping away overnight, headed for Pakistan’s new capital, where they would make up the DNA of a new elite. There were letters promising juicy promotions. And there were, on the other hand, rumors of violence if they stayed.

Shahid's parents had to make an immediate decision between India or Pakistan. His mother, Wilayat Butt, had never been so happy as she was in Lucknow. She was fiery and strong. Shahid has an image of her, striding out onto her balcony in Lucknow in jodhpurs and riding boots, slapping her thigh with a crop. She simply refused to leave.

But then came one afternoon in the crumbling elegance of the nawab's city. Shahid's father — a man in distinguished middle age, wearing wire-rimmed glasses — was riding his bicycle home when he was surrounded by Hindu youths, who began beating him with hockey sticks.

He soon decided to move the whole family to Pakistan, where, in the great reshuffling, he had been offered a job overseeing the new country's civil aviation agency.

He was right to worry; over the months that followed, the city of his youth, Lahore, would be bathed in blood.

"We were children," recalled Salma, Wilayat's daughter-in-law. "Riots were on, and we couldn't go out at all. Weeks and weeks, the dead bodies were lying around, and when we went to the bazaar to get our food there was so much rioting and robbing, people were robbing. At night it would be very frightening, you could hear people crying and shooting and stabbing. We would be sitting next to the window and watching."

Wilayat followed her husband, Shahid told me, but she never accepted his decision to leave India. She was obsessed with what she had left behind. In her mind, the grudge sprouted and germinated, and her behavior became volatile. Then her husband suddenly died. Now with all restraining influence on her gone, furious over the expropriation of her property, she accosted Pakistan's prime minister at a public appearance, Shahid said, and slapped him.

This changed things for Wilayat. She was no longer a well-connected widow, but something shadier.

She was confined to a mental hospital in Lahore for six months after that — the only way, Shahid said, to avoid a long prison sentence. Shahid remembers visiting her there, among the wails and curses of the patients. "It was horrible," he said. "Women tied up with chains. One poor girl was chained up to a wall. It was four chains. And she was swinging. And spitting at everybody who went past."

Salma said that Wilayat was given electroshock therapy. "They said she was mental," she said. "They gave her all these injections."

When she was free, Wilayat gathered up her youngest children without warning, packed trunks with carpets and jewelry, and smuggled it all back into India, with the goal of reclaiming her property. Shahid set out with them but eventually walked away. He could not put into words why he left. His story flickers out here.

Early this month, Shahid died in the front room of his house, holding Camellia's hand.

It was Partition that ruined his mother, set her on the course toward the ruined palace, Shahid had told me. "We had to start all over again," he said.

In the early 1970s, still empty-handed, increasingly bizarre in her behavior, Wilayat announced to the world that she was the queen of Oudh, demanding the vast properties of a kingdom that no longer existed.

An ordinary grievance, unaddressed, had metastasized to become an epic one.

They took on new identities: Farhad became Princess Sakina, occasionally Princess Alexandrina; Mickey became Prince Ali Raza, and later called himself Prince Cyrus. They no longer made any mention of their Pakistani relatives, or the spacious family house in Lahore that was waiting for them should they return. Maybe they forgot it existed. They seemed to shed their past entirely, to come from nowhere.

The rest of the story you already know.

They were so convincing, and so insistent, that for 40 years people believed them.

## **The City of the Dead**

So there it is: I have plundered their secret. Cyrus would have hated it. He refused to answer questions about his past; it was one of the essential themes of our friendship.

I try to imagine how he would react to all this. His father on his bicycle, being beaten with hockey sticks. His mother in a mental hospital where women were chained to the wall. His older brother running away, abandoning him. Mickey Butt, the name he had left behind.

There is no nice way to put this. I am unraveling the story that was the central work of their lives. It is impossible to know, now that he and his sister are dead, whether they even knew it wasn't all true.

Either way, this article would have crushed him.

And yet, why do you invite a journalist into your life, if you do not expect this to happen? That is like asking a dog not to bark. I must admit, it offends me a little when people think they can lie to reporters.

But even today there are plenty of autorickshaw drivers in Old Delhi who will tell you about the prince who lived in the jungle. And they will be telling that story long after mine has come and gone.

I was reminded of this on my last trip to Delhi. I visited the cemetery where Cyrus is buried. I had an idea of placing a stone there, something that said Prince Cyrus of Oudh.

But he had been buried as an unclaimed body, assigned the number DD33B. Unclaimed bodies are marked only with chips of stone, and small mounds extend in all directions, to the vanishing point. After wandering the cemetery for what seemed like hours, I sat down, sweaty and miserable.

"He is lost in a city of the dead," I wrote in my notebook.

My colleague Suhasini was haranguing the clerk, urging him to look through his ledger one more time, when I realized that a man was warming himself beside a stove, listening intently.

He then stood up and presented himself, rather formally. He was Mohammad Aslam Chowdhury, a seller of electrical wiring from Old Delhi.

He was wearing a voluminous, cheap-looking tweed jacket, and had a squiff of hair, dyed jet black. He presented a plastic folder and showed me its contents. It was filled with newspaper clippings about Cyrus's death.

He said he carried the clippings to remind himself how swiftly earthly glory passes.

"In Old Delhi, this was the only topic of conversation," he said. "People were saying such a big king passed away like this, in such a way that nobody knew him. How could the scion of such an illustrious royal family get lost in the darkness of oblivion?"

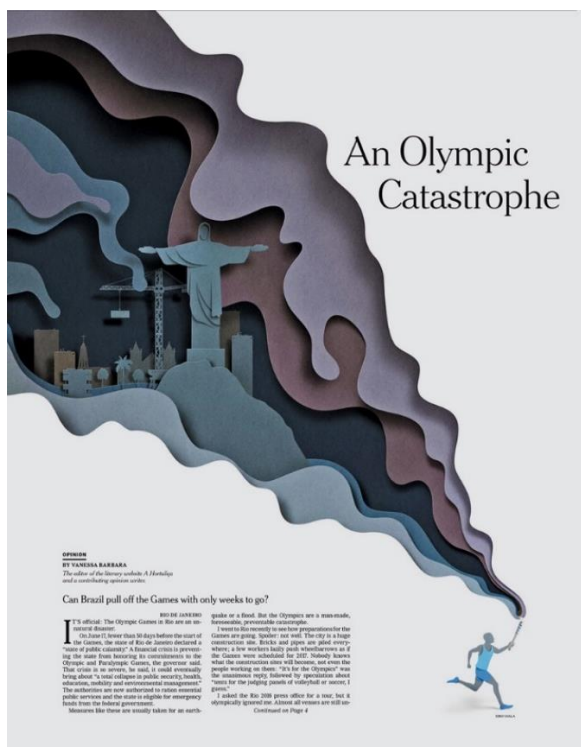
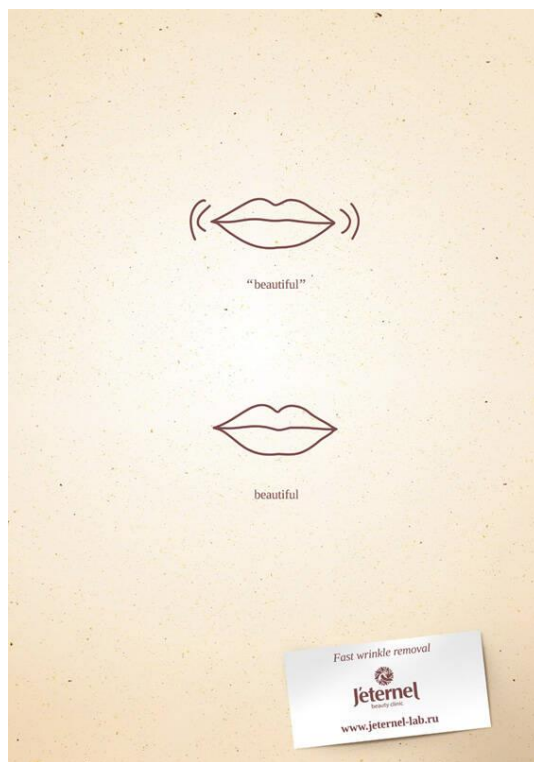
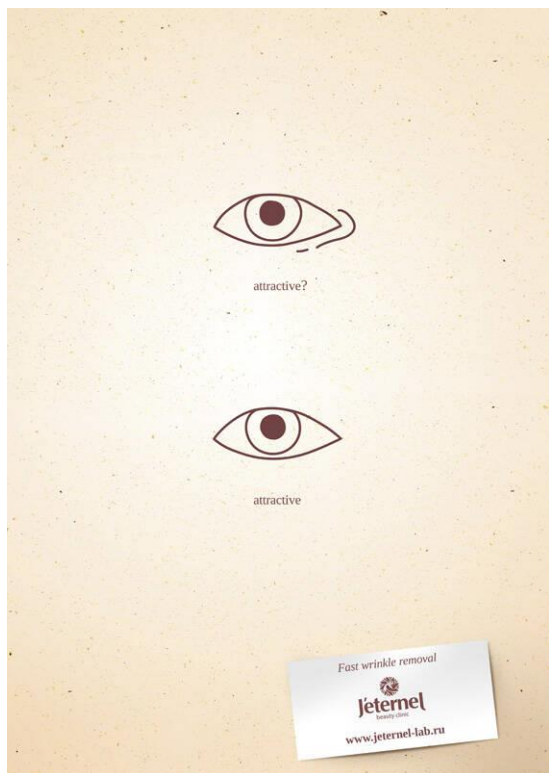
As he spoke of Cyrus's death, Mr. Chowdhury became distressed.

"I feel really emotional about this, that something like this can happen on an earth made by God," he cried out, as the other people in the clerk's office turned to stare. "O destiny, tell me why you are angry with me. What I have done wrong?"

I glanced incredulously at my interpreter: Could this really be happening? But Mr. Chowdhury was in his own world. The story of the royals of Oudh had sounded a note within him. He would be telling the story for years, I realized.

"If a person like this has gone into oblivion, and had this death of anonymity," he said, wonderingly, "what can you say about the death of a commoner?"

## Interpreting Visual Ads



*In addition to this, you will have:*

**B. Productive Skills: Speaking & Writing (11 sessions)**

13. Introducing Oneself and Others (1 session)
14. Requests and Offering Help (1 session)
15. Enquiries and Seeking Permission (1 session)
16. Offering Instructions and Giving Directions (2 sessions)
17. Concord (2 sessions)
18. Question Forms (1 session)
19. Question Tags (1 session)
20. Derivatives: Suffixes and Prefixes (2 sessions)